

We are more than gratified at the enthusiastic and encouraging response which you and your neighbors expressed when the Desert Magazine was placed on sale for the first time last month. We are convinced that you are proud of the magazine and that you like to show it to your friends.

Personality

Science

History

Travelogs

Development

Hobbies

Nature

Mining

Fiction

Homes

Books

Comment

other features
each month.

You can find no better gift expressing the spirit of the desert you love than a subscription to this magazine—sent to your friend at Christmas time. On receipt of your subscription remittance we will send an acknowledgement to you and we will prepare a gift card which will arrive at your friend's address at Christmas time.

Just print or typewrite the names on a sheet of paper, together with your name as donor and send it with your check to the DESERT MAGAZINE, El Centro, Calif.



DESERT

Calendar

for December

Civic groups in the desert area are invited to use this column for announcing fairs, rodeos, conventions and other events which have more than mere local interest. Copy must reach the Desert Magazine by the 5th of the month preceding publication. There is no charge for these announcements.

Vol. 1

NEWS

COMMENT

NOV. 16 to DEC. 5—Twenty-day open season for elk hunters in Arizona. Limited to 300 resident and 50 non-resident permits.

NOV. 27 to DEC. 26—Thirty-day open season for ducks and other migratory waterfowl in Arizona and Southern California. Limit 10 ducks and 5 geese.

NOV. 25, 26, 27, 28—Rodeo and '49 Celebration to be held at Chandler, Arizona.

NOV. 30—Thirty-day season for ducks, geese and other migratory waterfowl closes in Nevada.

DEC. 3—Paul R. Frank of the National Park service at Mesa Verde, to speak at the Heard Museum in Phoenix. This is one of the lecture series arrangd for the winter months by Mrs. W. K. James, chairman of the museum program committee.

DEC. 5—Colt show to be held at Yuma, Arizona, as a preliminary to the annual Horse Show to be held in the spring. Event will be open for weanlings, yearlings and two-year-olds.

DEC. 12—Guadalupe Day festivities to be observed at Santa Fe and various pueblos in New Mexico.

DEC. 15—Closing date for quail hunters in Arizona.

DEC. 18, 19—Sierra Club of California to have weekend program at Dead Indian canyon near Pines-to-Palms highway in Coachella valley. Dr. Marko J. Petinak, leader.

DEC. 30—Season closes for quail hunters in all California desert areas.



DECEMBER, 1937

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The Desert Magazine is published monthly by Randall Henderson and J. Wilson McKenney, a co-partnership, at 597 State Street, El Centro, California. Application for entry as second class matter is pending.

THE EDITOR

Just Between You and Me

Here and There on the Desert.....

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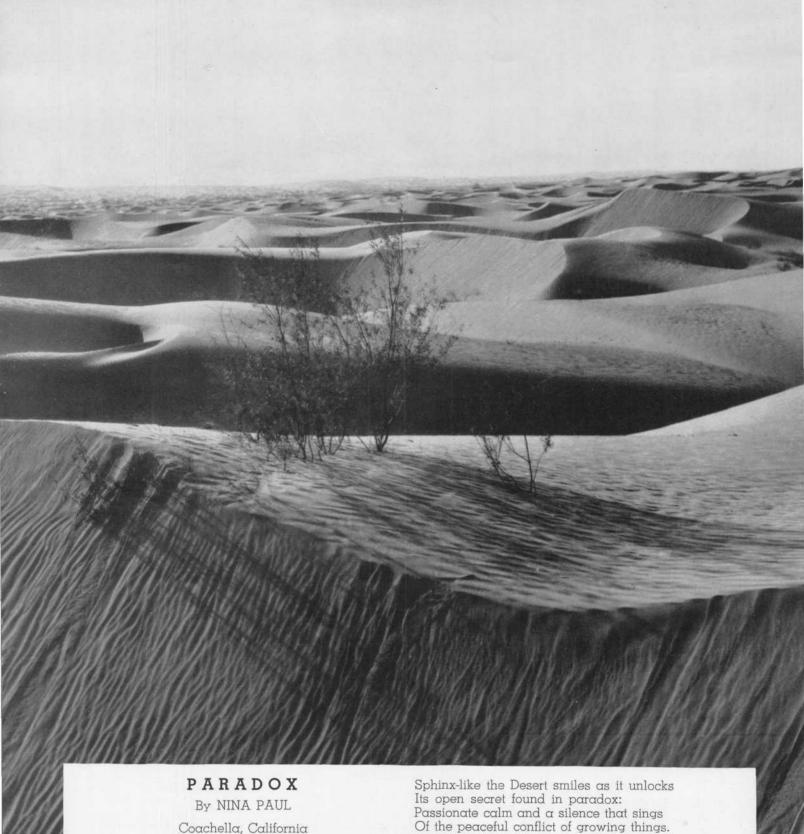
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Notice of change of address should be received by the circulation department the first of the month preceding issue.

No. 2



So strange this vast unlonely solitude;
Primeval force in every wayward mood;
A land not clothed with grass, not graced by wood.

Raw youth deep-scarred by age in every line;
Eternal drama, patient, fierce, serene,
With Life and Death co-starred on cosmic screen. So strange this vast unlonely solitude;

Man cries, "O Desert, by what unknown art Do you ensnare and thrall the human heart?"

His voice is lost in boundless windswept space; Blank, burning mystery enshrouds the face Of naked rock and blinding, sun-struck sand. Man prays, "O Desert, let me understand!"

Pastels of beauty wrought in harsh design;

Man laughs, though tears are in his light-hurt eyes. He whispers, "Desert, you have made me wise! Your lure is my own yearning in disguise.

"I know from this one glimpse behind your mask, My answer is the question that I ask.'

Photo by Hetzel, El Centro

LETTERS

If the enthusiasm of its readers is a fair gauge, the success of the new Desert Magazine is assured beyond any doubt. Since the first issue came off the press a month ago many hundreds of letters have been received. The response has exceeded the fondest hopes of the publishers. Almost without exception these letters expressed approval. A few of them contained suggestions and constructive criticism—and these were equally welcome. Below are printed extracts from just a few of the letters.

Los Angeles, Oct. 8

Sav Boys:

You have started something. I like it. Keep it up. I am an old desert rat since 1882—all over the Mojave desert. Drove 28 mules for nine months when a kid. If I can help let me know.

FRED H. SKINNER

Phoenix Oct. 21

Dear Editor:

I read your first issue of the Desert Magazine with a great deal of pleasure and found that it will make grand Christmas presents for my family back in Michigan who seem to be under the impression that I am living in a place that is cross between the Sahara desert and the South Sea islands, and I feel that thru your magazine they will at least get a hazy if not a good idea of this interesting country.

CLAIRE MEYER PROCTOR

Pomona, Oct. 12

My dear Mr. Henderson:

Congratulations. The "Desert" magazine is a healthy youngster and with proper nourishment should mature in a few months into the first real authentic sentinel of the desert and its environs.

I do not know how long you have been a son of the desert. You have, however, received the baptism sufficiently to understand the desert omen. Always be willing to listen to those who live on the desert. The trail is little understood and seldom traveled by those with no heart, but to those who have battled sandstorms, the rain, the winds and snow—only those know the call of the desert and can appreciate the thunder of silence from Picacho's peak or the western slopes of the San Franciscos at Flagstaff, or the soft ruffle of a desert twister at Tuba City.

JAMES E. SELLERS

San Diego, Oct. 15

My dear Sirs:

I have just received your November issue of "The Desert Magazine" and must say that it is a gem. From the frontispiece to the last page I find it not only interesting but instructive. I am very much taken with the atmosphere you create for the dear old west, which is intriguing to me.

W. B. GEORGE

PARK DIRECTOR LIKES MAGAZINE



Arno B. Cammerer (right), Director of the National Park Service, pauses with Park Ranger Don Erskine to read the first edition of the Desert Magazine. The men stand beside the Casa Grande ruins, one of the oldest Indian habitations in the Southwest. Near the ruins are the headquarters of the many national monuments in the Arizona-New Mexico area.

Wilmar, Cal., Oct. 21

Gentlemen:

First copy received and explored. Fine! We are proud of it. The first cut on page 5 may be considered grim and desolate but to us desert-minded individuals it is nothing short of alluring. Some day I am going to write a poem to prove that you are absolutely wrong in saying Steve Ragsdale is the world's worst poet.

GEO. A. STINGLE

El Cajon, Cal., Oct. 20

Dear Editor:

Say! If you fellows are only amateurs in the editing business I feel sorry for your competitors when you really learn how to do it right. In the first issue you struck a pace which many of the old quality slicks will have trouble keeping up with. You have sounded a note which I feel must find response over a wide field. Congratulations and my heartiest wishes for your success.

VOLLIE TRIPP

Guerneville, Cal., Oct. 18

Gentlemen:

Your magazine in my opinion is wonderful. I enjoyed it verv much until I read "The mechanic forgot to put water in the battery." At that point my blood began to boil. You see I am a mechanic. Now we mechanics get much undeserved abuse from the public without need for advertisement. I would like to wring the neck of that mechanic you spoke of for disgracing the clan. And yet I don't see how it happened. In all my experience I have found that a mechanic who receives good wages does not forget.

I hope you will take this bit of criticism in good spirit. And now that it is off my chest I can enjoy the magazine. It is even so good that it will offset the little remark about the mechanic.

CECIL EDWARDS

Los Angeles, Oct. 14

Gentlemen:

In your first issue of the Desert Magazine Lillian Bos Ross describes her experience in securing a drink from barrel cactus which she says was "sweet." I for one, object to the glorification of Ferocactus as source of delicious sweet water ever available for thirsty travelers in the deserts of the Southwest. . . .

One of the articles in an eastern magazine with a large circulation goes farther than does Mrs. Ross. I quote: "The origin of the name barrel cactus comes from the capacity of the Visnaga (Mexican for barrel cactus) which contains about one barrel of water each, and the desert is dotted with kegs and barrels of wholesale water standing around in the form of plants in plain view of thirsty animals and lost travelers."

Now doesn't that take the horror out of the desert? One would gather that all that is needed to complete the picture is glasses, a bar, and a brass foot rail to make the desert a paradise for the heavy drinker.

I want the Desert Magazine to make a success of it and anything I can do to assist is yours for the asking.

Truly yours, G. A. FRICK



Burrowing into the sandhills of Southern Nevada, archeologists have uncovered the homes and utensils of a thriving Indian civilization which existed 300 or 400 years before Columbus discovered America. Now the rising waters of Lake Mead are about to submerge the Lost City and remove it permanently from the field of research. But in the meantime the men of science have uncovered a wealth of interesting facts about these ancient tribesmen. The highlights of their discoveries are presented in this story by Johns Harrington, son of the archeologist in charge of the excavations.

'Lost City' of the Ancients to Vanish Again in Lake Mead

A RROW-MAKER sat down on a boulder and looked to the east across the Valley of the Lost City where the pueblos of his people dimly were outlined in the distance.

Lizard-Digger, the Indian's lean dog, whined. He wanted to go home. They had been away for nearly a week. They had gone to Atlatl rock in the nearby Valley of Fire where his master had been praying to the Rain and Thunder Spirits, and writing picture messages to the tribal deities on the canyon walls.

Lizard-Digger had caught rabbits and other small creatures for food. Arrow-Maker had fasted to make his prayers more acceptable to the Gods. When he returned he would take part in the rituals to be held in the circular underground rooms—the *kivas*. Sand-paintings of clouds and lightning, and stones bearing the painted emblems of fertile crops, would surround the altars.

Arrow-Maker's people lived in onestory houses of stone and adobe, scattered along the foothills on either side of the valley for a distance of five miles. Many of the tribesmen were wealthy and the members of their clans were grouped together in apartment-like structures built around circular courts, some containing as many as 100 rooms.

Mesquite, willow, arrowweed and salt bushes covered this Nevada valley save By JOHNS HARRINGTON

where the Indians had cleared the land to grow cotton, corn, beans and squash. Meandering along the length of the valley was a sluggish river, checked by an occasional brush dam built for irrigation purposes. These dams were made by driving stakes into the mud of the river bottom, then piling brush on the up-river side. Rocks weighted down the brush and the level of the water was raised enough to start small streams flowing along irrigation ditches.

Primitive Tools Used

Arrow-Maker recalled how difficult it was to rebuild the irrigation systems every spring after the winter floods had destroyed those of the previous year. The dams were easy enough to replace, but excavation work for the ditches was not so simple. It was necessary to loosen the ground with digging sticks, then transfer it laboriously with tortoise-shell scoops into large baskets to be carried away.

The Indian youth and his dog resumed their journey. As they approached the pueblos the trail sometimes crossed the irrigation canals and ran through fields of maize, with bean vines clinging to the corn stalks. They passed little patches of cotton and squash along the way.

Arrow-Maker soon reached his home, the house of his mother, for among these people it was customary for the women to own the property. Arrow-Maker's father was head of one of the religious societies, and was therefore a member of the governing council of the village. The pueblo people of that period probably had no civil government—for it should be known that the scene presented here is the archeologist's concept of a civilization which existed approximately 800 A.D.

"Is there food in our house for your famished son?" asked the Indian youth as he greeted his mother.

"Yes, my son. Your brother has returned from the hills with the meat of deer and mountain sheep. There will be feasting in our house for many days."

Among the tribes of the Valley of the Lost City the men not only were hunters, but they built the dwelling houses, planted and watered the fields, and spun and wove the cotton. The women prepared the food and made pottery and baskets. They also dressed the skins and gathered the natural food supply from mesquite trees and the native grasses.

"Where is our father?" asked Arrow-Maker a little later when he entered the courtyard and saw his sister, Basket-Woman, grinding meal in the shade of



UPPER—M. R. Harrington, archeologist in charge of excavations at Lost City, with Willis Evans, Indian foreman of the CCC digging crew, at field head-quarters in Nevada.

CENTER—Fay Perkins of the National Park service who is in charge of the Lost City museum at Overton, Nevada. Perkins is a practical archeologist.

LOWER—Relics of a human burial just as they were found beneath several feet of earth at Lost City by the excavators.

Photos Courtesy Southwest Museum

a brush shelter within the circular enclosure.

"He has gone to the salt mines where the small river joins the big one," she replied. "Others went with him as they have need of much salt. Traders from the tribes beyond the western mountains near the great water have brought elkhorns and abalone and olivella shells to exchange for our salt."

Crude was the mining of those Indians who lived in the Nevada desert three or four centuries before Columbus discovered the Americas, but effective none the less. Torches made with bark and arrowweed and fine sticks lighted the salt caverns. Notched stone hammers attached to wooden handles were used to break down the white crystals from the cavern walls.

Basket-Woman was dressed in the garb of the tribe. A dress woven of cotton and dyed a purplish color reached her knees, and around her waist was a cotton belt with designs of red and black. Her hair was tied in two knots, one on each side of her head.

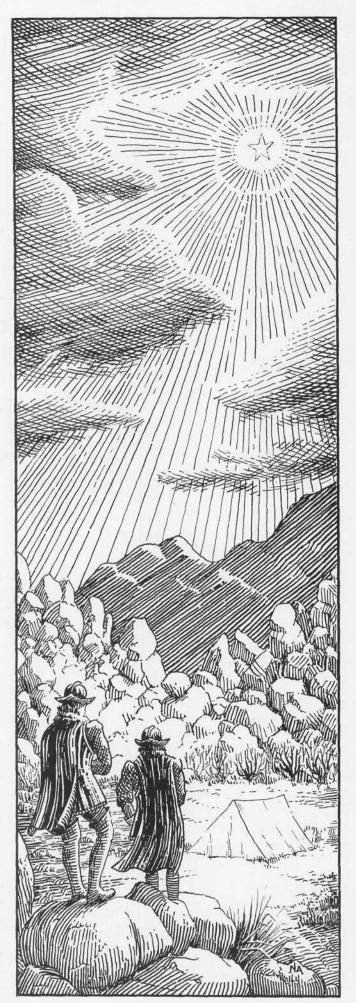
The pre-historic dwellers of Lost City were short of stature and slender, with round heads and long black hair. Both men and women wore fiber sandals. The men probably picked out their sparse beards one bristle at a time, and accepted the pain with the stoicism of their race.

Arrow-Maker wore a white cotton breech clout, or sometimes a kilt. Both were held in place with a waist cord made up of many cotton strings loosely twisted together. He wore a headband similar to his sister's belt, but narrower, with a fringe on its lower edge. Blankets of cotton or woven of furry strips of rabbit skin were used for additional covering during cold weather.

A daughter-in-law of the clan entered the courtyard as Arrow-Maker was talking with his sister. She carried her infant son on a cradle-board on her back. The back of the baby's head would soon show a slight deformation as a result of being lashed to the board for long intervals.

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Christmas Eve == 1775

Scene -- Copote Canyon camp of Juan Bautista de Anga

ANUEL, have you received your flagon of wine? The comandante has ordered that we may celebrate this night and the commissary is portioning out a pint to each man. Hurry, we shall have singing and dancing at yonder fire."

Manuel forgot his weary, aching legs and his wet clothes as he hurried toward the commissary tent, where other Mexican soldiers were laughingly crowding about the flap with their outstretched cups. He even forgot for a moment the loss of his pinto horse, killed by thirst and cold on the sands near San Sebastian. Here at last was a chance to find oblivion, to forget the hardships and terrors of this toilsome march. Ah, the comandante was a thoughtful man. They would all sing and they would forget everything else.

"Here he comes, now," shouted Pedro as Manuel entered the circle of light. "Sing for us a ballad of sunny Sonora while we forget this cursed wind and rain." Then in a lower voice he added, "But be careful Father Font does not hear you. He is especially ill tonight and he sulks after his talk with the comandante." He crossed himself hurriedly as he looked toward the priest's tent. The group of soldiers about the campfire laughed guiltily.

A tall figure wearing a cape and plumed hat came through the drizzle and paused for a moment beside the group. A respectful silence fell on the men.

"Drink moderately, my men," spoke Capt. de Anza in a loud voice. The soldiers had a feeling that he was speaking not to them but for the ears of the Father in the nearby tent.

Then in a friendlier voice he addressed the soldiers, "We lost eleven cattle on the last march from San Gregorio. Sergeant Grijalva tells me we have but two more jornados to reach a beautiful valley filled with running streams and plenty of grass. Rest you well tonight and take care of your Christmas gifts."

Juan Bautista de Anza's eyes twinkled as he looked about the circle of faces. "Where is Ygnacio Linares this evening?"

"Ygnacio is pacing beside his wife's tent tonight, my captain. One would think that he bore the pain himself," said Manuel.

Capt. de Anza passed on and the soldiers resumed their singing. But within a short time the weariness and discomfort of the day took its toll and the men retreated to their tents and their blankets. Soon only Manuel and Pedro were left beside the fire. Lt. Moraga had ordered them to stand guard over the horses during the night.

"Three months it has been since we left Horcasitas," Pedro sighed. "Will we never see our new home beside the great sea? My Rosita longs for a home and a garden."

"Yes, this is Christmas Eve and we are yet halfway between Heaven and Hell. But we have all escaped the desert and the great cold and we shall soon be in a land of trees and streams." Manuel seemed busy with his dreams.

The drizzling rain ceased. A cold wind whipped down Coyote canyon and lifted the mist, showing a patch of stars. Manuel looked up, startled by an unusually bright star directly overhead. Quickly he touched Pedro's

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For the Christmas motif, the Desert has its own quaint little Holly bush. It thrives on salty land—but is losing ground in its battle to survive the depredations of thoughtless human beings.



This Little Shrub Needs a Friend

By DON ADMIRAL Desert Scientist of Palm Springs

ROM the alkaline soils of the arid region comes a beautiful symbol of Christmas spirit—the Desert Holly. Christmas, for most persons, is associated with snow storms, sleigh bells, frigid weather and the stoking of fires. But in the desert land Christmas is associated with snow on the distant peaks, the songs of migratory birds, warm sunshine and perhaps a fire on the hearth when the sun sinks below the western horizon at Christmas Eve.

A green holly wreath adorned with red berries and tied with a large red ribbon welcomes one at the Eastern door, but on the desert the Christmas decoration is a wreath of the soft silver gray of the Desert Holly, with perhaps a cluster of red berries of the Desert Mistletoe.

The holly that grows on the desert is one of the salt bushes—Atriplex hymenelytra. It is a compact little bush, 18 inches to three feet high, conspicious for its silvery foliage. In the late summer months the leaves exposed to the direct rays of the sun take on a purple tint, but resume their natural shading early in the fall.

Another desert plant—Perezia nana—is often referred to as Desert Holly. It is found in Arizona, New Mexico and Texas, but does not grow in California. It is a little bush only a few inches high and has just a few green holly-like leaves. The species name *nana* refers to its dwarfish size and the plant might aptly be called dwarf Desert Holly.

The group of plants, the Atriplexes, of which Desert Holly is a member, belongs to the Pigweed family. In the desert region this family contributes many hardy dwellers which are able to withstand the difficulties of growing in alkaline soil. Some of them thrive in this type of soil.

Today the greatest threat against the existence of the Desert Holly is not the heat or sand or alkali of the desert land in which it grows, but the human foe who pulls it up roots and all, and takes it home for decorative purposes.

Over most of the arid region governmental agencies have passed strict laws to protect this and other desert shrubs against human vandals. But despite these laws Desert Holly has almost entirely disappeared from the roadside zones of the main highways.

Nature has given this exquisite little plant the means to combat its habitual enemies—but not the destruction of thoughtless humans. If Desert Holly is to survive it is going to need the loyal friendship of all those who love the desert

Gold Builds a Road

By J. WILSON McKENNEY

GOLD DISCOVERED on the Colorado! Los Angeles and San Bernardino were slumbering Mexican pueblos in the spring of 1862. Within a few days after the first announcement of the discovery of gold at La Paz the road through San Gorgonio pass became a major traffic artery, assuming an importance to southern California transportation it has never lost. Seventy miles north of Yuma on the Colorado river, La Paz must be reached overland on a route through an uninhabited desert.

Cannily sensing that "gold in them thar hills" would be of no value to man until he reached it and took it out, W. D. Bradshaw, a young stalwart about 36 years of age, pioneered and opened a stage road connecting San Bernardino and La Paz, a distance of 206 miles.

Bill Bradshaw's road to the placers suddenly became front page news in western journals of the day. Bradshaw's name was on the lips of every Californian.

There was a man! His biographer, Maj. Horace Bell, describes his friend Bill as "a natural lunatic," which was probably a typical observation from the pen of the intrepid journalist. But he does Bradshaw great credit in describ-

Canyon Springs stage station on the old Bradshaw stage road as it appears today. The springs are still to be found in a tributary canyon a half mile away.

ing him as "a more curious or marked character this chronicler never knew—one of nature's most polished gentlemen and brightest jewel in America's collection of true born chivalry. Bradshaw was brave, generous, eccentric, in manly form and physical beauty, perfect; in muscular strength, a giant; in fleetness of foot and endurance, unequaled."

Job for an Iron Man

It took a man of Bradshaw's stature to do what he did. For the famous Bradshaw road was no path strewn with daisies. No weakling could mark a trail across the untrod wastes of the Colorado desert, find and develop the little water it offered so grudgingly, and bring hundreds of men and mules to the new gold fields of the Colorado river. It is a pity the picture of Bradshaw left is no more complete, for he was a true man of the western deserts.

Strange it seems that a road which skyrocketed in importance so quickly and remained in such high favor for fifteen years should have become so completely abandoned over its greater portion. It served its purpose. More direct routes serve better now. The most important link in the road, the San Gorgonio pass, became the route of the main line of the Southern Pa-

cific railway. And the pass became the confluence of two transcontinental highways which now usher in thousands of auto tourists annually.

But the eastern half of the trail, from Coachella valley to the ferry on the river, became nothing more than a memory. It remains unchanged since Civil War days.

One way to tell the story of a road is to review the conditions which made the route necessary and to dig up the stories about the men who did the job. The men and the times were so much a part of each other that their stories were fused in a common background. So it is impossible to see the figure of Bill Bradsaw without seeing the barren purple mountains in the background, feeling the fierce beat of the sun's rays at midday, smelling the scent of crushed creosote bush, sensing the impelling power of men in search of gold.

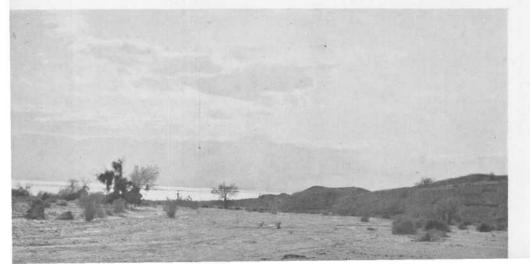
Pathfinder on the Desert

Bradshaw was not the creator of a road any more than he was father of a gold rush. He rode the wave out in front because he was a pioneer. The history of such rushes shows that the bolder, hardier men lay the course; others follow. There were other men who rode high on the wave of humanity, even a few who smoothed the way for the wave itself.

The story of Bill Bradshaw's road really begins with Captain Paulino Weaver, trapper, prospector and guide. Weaver found placer gold in one of the arroyos along the Colorado river near Ehrenberg in January, 1862. He took a few tiny nuggets to Yuma in a goose mill.

Jose M. Redondo and a party of Mexican prospectors returned to the field of discovery with Weaver and found bigger nuggets. Suddenly the

Looking across Salton Sea toward the Santa Rosa mountains at sunset, from the old road a few miles down the wash from Canyon Springs station.



The DESERT MAGAZINE

The name "Butterfield Stage Road" has been applied rather loosely to any and all of the old stage routes which crossed the Colorado desert of Southern California before the Southern Pacific line was built. As a matter of fact there was but one Butterfield trail—that which crossed the Colorado river at Yuma, dipped south into Mexico to avoid the sandhills, and continued to the coast by way of Carrizo and Vallecito valleys. The more northerly trail which still can be traced along the Chuckawalla range to the Colorado river near Ehrenberg was built by Bill Bradshaw and should properly be known as the Bradshaw road. Here are some interesting sidelights on the character of one of the leaders in the stagecoach era of desert history.

news was out and a gold rush started. Immediately there were wholesale desertions from the fort.

All this took place only a few months after Confederate troops had fired on Fort Sumter and Abraham Lincoln had taken the presidency. By the time the rush was well under way General Grant

was capturing Fort Henry.

For several years the Butterfield Overland stage line had been running through Fort Yuma and on to Los Angeles by way of Vallecito, Warner's, and Temecula. But gallant and colorful as it was, the project was forced to fail with the outbreak of the Civil War. The Butterfield line had, however, opened transportation from the east and had made communication between Fort Yuma and Los Angeles easier. So the gold news, traveling with the uncanny speed of rumor, soon reached the coast towns. The scene was set for Bill Bradshaw.

Los Angeles heard that one Don Juan Ferra had taken from his claim in the La Paz placers a nugget weighing 48 ounces. At the prevailing price of gold, the lucky Sonoran received \$816 for his find. Quickly rumors came and grew of fabulous riches made over-

night. By the time news had passed by word of mouth from town to town, the riches probably assumed prodigious proportions. Is it any wonder that every man who had not gone to take sides in the Civil War was fired with the desire to dig himself a fortune at La Paz?

Bradshaw was one of the first to heed the call. Fearless adventurer, he had already figured prominently in the Bear Flag revolt of California.

First Road Through Pass

While Bradshaw did not actually discover San Gorgonio pass, he laid out a road there and maintained that it was a better route than Cajon pass and the Mojave desert. The 2300-foot pass between towering San Jacinto and San Gorgonio peaks had been charted when the Williamson railroad survey party came through in 1853. Pedestrians and horsemen had used the pass for several years but it was not ready for heavy traffic until Bradshaw heard the call of the gold fields.

Chief Cabezon, leader of the desert tribe of Cahuilla Indians, is credited with having drawn for Bill Bradshaw a crude map showing a possible route from the pass to the river. Fittingly enough, a little railroad town east of Banning is now named Cabazon, with a slight variation from the spelling of the Chief's name. But the name of the man who accepted the Indian's advice is immortalized only in obscure history books.

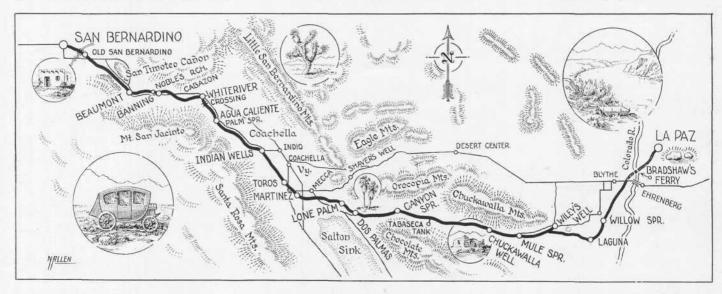
From Water Hole to Water Hole

Bradshaw laid out his road, crossing the pass and descending to Coachella valley, then a sandy waste, by way of Whitewater riverbed. Crossing the desert valley in a southeasterly direction, he entered a gap between the Orocopia and Chocolate mountains just north of the Salton sink. There was an easis at Dos Palmas and another near the summit of the creek bed at Canyon Springs.

Bearing to the south the trail blazer stayed on high ground between the Chuckawalla and Chocolate mountains, finding water at Tabaseca tanks and Chuckawalla wells. There was a station at Mule Springs along the south edge of the Chuckawalla mountains. Laguna station was located on a lagoon of the Colorado river, Willow spring was near the center of Palo Verde valley, and Bradshaw's ferry was a little north of the present Ehrenberg bridge.

The Bradshaw route gained in popularity and everyone who traveled it gave it the preference over any of the other desert roads which were occasionally used. Its popularity no doubt was due in a large measure to the pressagentry and great physical energy of Bill Bradshaw, who on August 23, in the heat of the summer, met 150 men in San Bernardino to conduct them personally over his road to the mines. Apparently he regularly conducted such parties. The bringing of large groups of indifferently equipped men through the discomforts and dangers of summer desert travel without casu-

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Palms That Grow in the Mud Hills

By RANDALL HENDERSON

WHO KNOWS THE ANSWER?

Who named the Pushawalla canyon—and what is the origin of the name? The writer of this desert-log has sought the answer to these questions from many sources. No one has been able to give authoritative information. The Desert Magazine will be grateful for this information so that it can be passed along to others who are interested.

If I were asked to name the most drab and uninviting plot of desert in Southern California—as seen from the highway—the first picture which would come to my mind would be those dull, dreary hills which border the north side of Coachella valley between Indio and Edom.

And if I were asked to name a dozen of the most picturesque canyons to be found in the Southern California desert, one of the first on my list would be a charming palm-lined arroyo which threads its way through those same ugly hills—the Pushawalla Canyon.

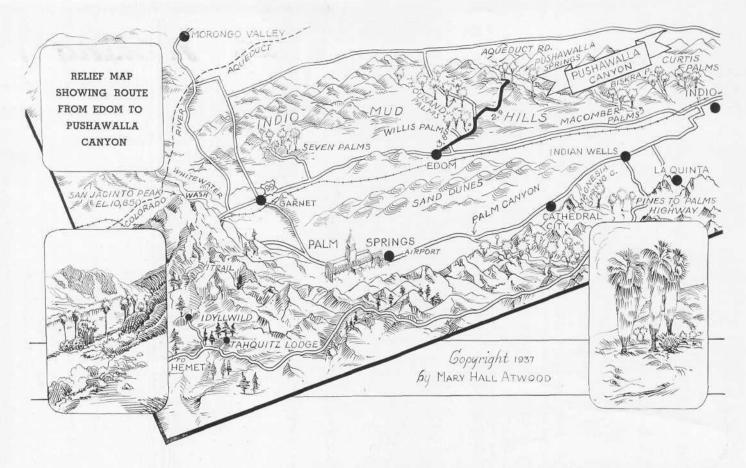
"Indio Mud Hills!" That was the answer when I asked an old-timer of the Coachella valley to tell me the name of the hills which form the northern rim of the basin. Since then I have verified this name on at least one map, although other maps omit the "Mud" and merely designate them as the Indio Hills or Coachella Hills or Mecca Hills.

I daresay that not one motorist in a thousand ever favors that drab land-scape with a second glance. Probably there are many who have passed along Highway 99 or 60 or 70—they're all the same at this point—who are not even aware of the existence of the hills.

And yet, in the coves and arroyos and hidden recesses of these highly eroded piles of clay are to be found a greater number of the native palms of the desert—the Washingtonia filifera—







than in any other equal area in the Southwest.

Thousand palms, Seven palms, Willis palms, Biskra palms, Curtiss palms, Macomber palms, Pushawalla palms are all found here. And there are many other groups with no recorded names. No one knows whence these palms came, nor how long they have been here. Probably at some distant period in the past there were many more. The visible water supply has vanished at many points. But there still remains an underground source of moisture. Otherwise the trees would have perished.

The desert—the real desert—cannot be seen from the paved highway. This is true of Pushawalla canyon—just as it is true of a thousand other picturesque arroyos in the land of little rainfall.

Thrill of Uncharted Roads

Pushawalla canyon offers a trip for those who find a thrill in traveling the uncharted roads, and who accept the rocks and ruts of an unexplored trail in the spirit of a glorious adventure.

The 8-mile drive from the paved highway at Edom is rough, but passable to the careful driver. The motorist leaves Highway 99 at the little Edom oasis where a huge sign announces "Thousand Palms Junction." Take the Thousand palms road. At 3.8 miles a sign points to Willis palms on the left, but the route to Pushawalla continues

straight ahead. At 4.7 miles take the right fork and follow an uncharted road which swings around an obtruding spur in the mud hills. The trail follows a sandy wash for some distance, but there is no hazard for the cautious driver. At the next fork, 5.8 miles from Edom, take the left road leading toward the little white cabin at the mouth of a wide arroyo. The road passes through the front yard of the cabin and continues back into the hills.

Palms Along the Way

A picturesque group of palms concealed in an amphitheater-like cove suddenly comes in view on the left. Ahead is a straggling fringe of palms along the base of a low hill. Continue on the road to its end—high up on a bluff overlooking the Pushawalla.

Some of the palms on the floor of the arroyo below are visible at this point, but the main group of trees is huddled around a clear spring of good water three-fourths of a mile up the arroyo. If you feel adventurous you may scramble down the precipitous bank of gravel to the floor of the canyon near where your car is parked. However, a fairly distinct trail follows along the top of the bluff to a point where the descent is easier.

Near the springs are the ruins of an old adobe building, erected many years ago, according to hearsay, by prospectors who found traces of gold in this area. More recently a stamp mill was installed to crush gold-bearing ore brought down from the San Bernardino mountains. Recently this has been removed, and today the little oasis is free from any hint of commercialism.

The sandy Pushawalla arroyo extends entirely through the mudhills, and a car especially equipped for sand travel may reach the spring either from the southern entrance, or from the Aqueduct road which extends along the base of the San Bernardinos on the north. Traces of a former road which came in from the north are still visible at points along the arroyo.

Veteran Stands Guard

Charles E. Layton, retired veteran of 18 years service in the United States army, owns the little white house at the entrance to the arroyo. The road crosses his homestead and passes through his front yard. He is a friendly guardian of the Pushawalla palms—friendly to those who come on a peaceful mission, but an unsparing foe of those vandals who would despoil the desert's beauty spots.

It really is not a trip for high-heeled shoes and Palm Beach trousers. But for those who like their desert in the raw and who find a thrill in scrambling over boulders and exploring desert canyons away from the beaten trails, the Pushawalla offers a day of rare enjoyment. Most folks would regard the handling of live rattlesnakes as an extremely hazardous occupation, but to Park Ranger Ted Thatcher it is just an incident in his week's work. There's a market for the venom which he extracts from his box of rattlers.

Milking Time for the Rattlers

By LARRY D. WOLMAN



IN ONE hand he held a squirming rattlesnake, and in the other a small glass bowl containing a few drops of one of the most deadly poisons known to man.

"There's really no hazard to this job if you know your reptiles and are careful."

This was Ted Thatcher's answer to the audible gasp of horror that came from the little group of spectators as he seized a struggling rattler by the neck and began forcing its jaws apart.

We were gathered on the veranda of of the ranger station at the Lehman Caves National Monument near Baker, Nevada, where National Park Ranger Ted O. Thatcher is custodian of one of Uncle Sam's well-administered park reservations.

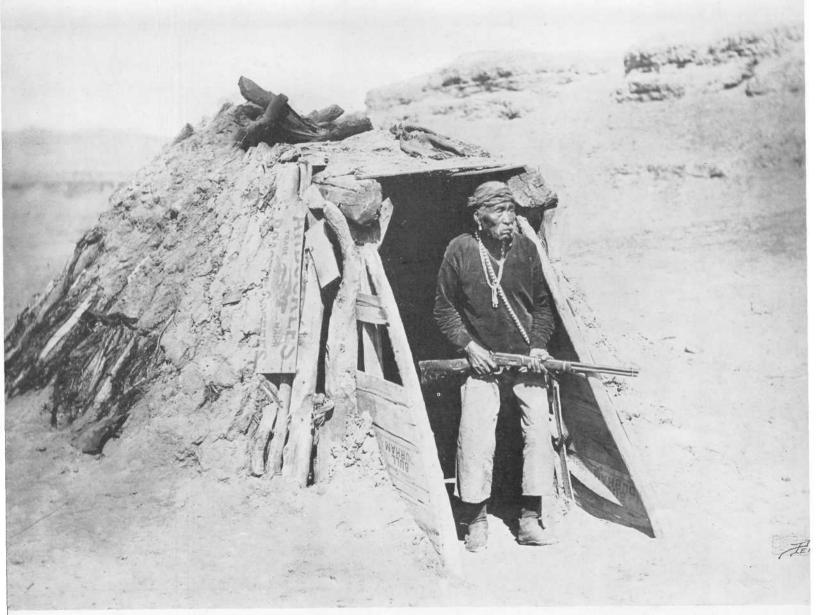
On the porch Thatcher keeps a box of villainous looking rattlesnakes captured in the hills around the government reserve. The snakes are always a source of interest to visitors at the caverns. Ted makes them pay for their keep by extracting the poison from their sacs three or four times a month.

"Milking the rattlers," the rangers call it, and Thatcher has developed a technic which is both interesting and effective.

His equipment consists of a three-foot stick with a fork at the end. In the fork of a slip noose so adjusted that he can tighten it about the neck of the snake by pulling the wire which extends along the stick to hand grips. He shoves the forked stick down into the box where the rattlers are coiled and maneuvers it until one of them puts its head through the noose. The loop is tightened then and Mr. Diamondback is yanked from the box. Thatcher grasps the snake by the neck, releases the noose, and the milking job begins.

A small glass bowl with a sheet of rubber stretched taut over the top is the receptacle for the poison. By pressure on the back of the head the snake's jaws are forced apart, and the fangs pressed down on the rubber until they punch through. The venom drips from their

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BE-ZHOSIE

Photo by W. M. Pennington

THE FEEL OF THE DESERT

DEFIANCE

Be-Zhosie, famous medicine man of the Navajo tribe. This Indian commanded great respect among his fellowtribesmen, and his hatred of white men made of him a disturbing influence.

It was not so much the white men he hated, as the laws they represented. Be-Zhosie was among the few thousands of Navajos who were rounded-up by Kit Carson, herded together across the desert on a wholesale drive which reduced the numbers by deaths, and held as prisoners in the unfamiliar regions near Fort Sumner, in eastern New Mexico.

In 1886, when the first Navajo reservation was set aside from the public domain, the Indians were herded back across New Mexico and turned loose in the Four Corners region. The seven or eight years' captivity had made an anarchist of young Be-Zhosie, but he managed to avoid open conflict with Uncle Sam until 1916.

The controversy crose over the subject of plural wives.

"Give 'em up!" ordered Uncle Sam,
"Plural marriage is un-Constitutional."

"I won't!" retorted Be-Zhosie, "It was right for my ancestors and it's good enough for me."

The Beautiful Mountain Rebellion made front page copy for newspapers of the world. From the safety of volcanic Beautiful Mountain in the Lukaichukai range, Be-Zhosie and his followers figuratively thumbed their noses at Uncle Sam The rebellion was settled without a single shot.

Visitors are no longer permitted to take pictures of the Hopi Snake dance. This photo was taken before the ban was placed on cameras.

A GOOD desert road—if you know what that means—winds seventyodd miles from Winslow, Arizona,

Men Who Carve Dolls and Dance with Serpents

By WILLIAM DAVID STEWART

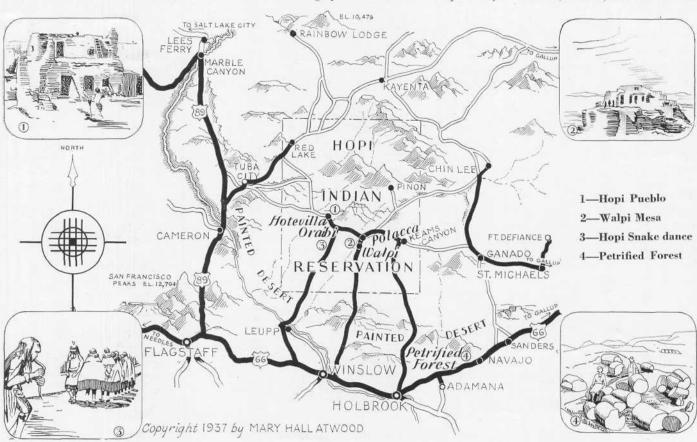
northward to the Hopi pueblo called Walpi. If the desert interests you it is a fascinating trip, through pastel-shaded shales, past cones of extinct volcanoes which are of recent activity as Geology measures time. The vegetation is sparse, but you wonder at the hardy perseverance of any plant that can live in a soil so inhospitable.

Sprawling like a gray monster of prehistoric age against a back-drop of purple desert haze that is punctuated by shadowy buttes and distant cones rises the ancient first mesa of Hopiland—where men carve dolls and dance with serpents.

Near the base of the mesa is Polacca. a village which includes the Hopi day school, the postoffice, a Baptist mission and a trading post which sells Hopi handicraft and tourist supplies. A narrow road with low-gear grades climbs the wall of the mesa. On the top are three villages, Hano, Sichomovi and Walpi. The latter, perched on the point of the mesa, is the oldest. Not far distant are other Hopi pueblos—Oraibi and Hotevilla.

Here live the men who create the katcinas—those queer little wooden dolls, brilliantly painted with unfamiliar symbols. They are to be seen on the shelves of nearly every curio store in the Southwest. To this place come hundreds of Americans every year to witness that strange ceremony—the Hopi snake dance.

The name "katcina" is one which, like other Indian words, is spelled in many ways—kachina, kasina, katzina or kat-



cina. The last is the spelling most frequently used by anthropologists and students of pagan American theologies. Difference in spelling is inevitable in dealing with a language which is wholly oral. The Hopi Indian softly pronounces the word kah-tsee-nah, with a slight rising inflection on the final syllable.

Men who carve dolls and dance with serpents! A bizarre combination—and yet isn't it possible that there may be some far-fetched relation between these two unconventional pastimes?

Yes, there might be. Actually there is. The katcina dolls are carved and colored to represent Indian dancers dressed in ceremonial regalia, the costumes which represent certain important deities of the Hopi religion. These are the garb worn by Hopi men dancing with live squirming snakes of the desert dangling from their mouths in devout prayer for rain to bring fruition to their crops.

The name "katcina" signifies spirit, or soul, or personality. Thus the term may be applied to any invisible force such as life, death, fertility, lightning, thunder, rain, wind, etc.; anything that motivates visible phenomena.

A comprehensive discussion and explanation of the Hopi katcina, in theory and practice, was prepared in 1899-1900 by Professor Jesse Walter Fewkes. By arrangement with individual Hopis, he acquired numerous colored drawings illustrating the forms and masks and costumes of a host of individual katcinas.

The complete discussion was published in the 21st annual report of the Bureau of American Ethnology, of the Smithsonian Institution, in 1903. Included in the volume are 63 full-page color plates, reproducing some two-hundred or more of the kateina drawings. The serious student of anthropology will find this volume replete with interest.

Consider, then, the vast amount of accurate knowledge which must be stored in the brain of the professional maker of katcinas: masks, costumes and symbols, for all the hundreds of varied katcinas must be reproduced in accurate detail, to avoid offending each jealous

The professional Hopi Katcina-maker is not mentally sluggish. He carries in his mind all the details of designs, colors, decorative symbols and proportions for hundreds of individual models. Incidentally, observe the straight toes of the man whose feet never have felt the deforming abuse of the white man's shoes.

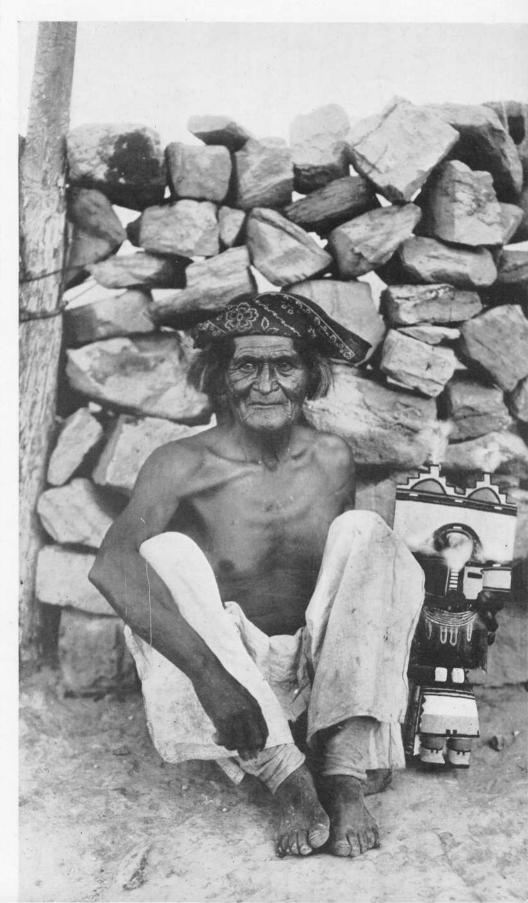
Photo by W. M. Pennington

deity. Since no permanent visible records are maintained for his reference, the katcina-maker must carry this fund of information in his memory. And there have been educated Americans, enjoying all the conveniences of mechanized civilization, who have thought the desert Indian lacking in intelligence!

The Hopi katcina-maker prefers the

sun-dried porous roots of the cottonwood tree for the bodies of his dolls. His tools are few and elementary—a small dull saw, a light hammer, a wood chisel, and an auger. He scorns the white man's paints and brushes, preferring powdered colored earths mixed with water and applied by feathers.

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Trucks Roll Again at Clifton and Morenci.

The PD Revives One of Arizona's Old Mining Camps on a Huge Scale

By JONATHAN BART

R UCK AWALT smiles again. Business was poor at his service station during the depression years but now he is busy all day at his pumps and the Awalt tourist cabins are always rented. He smiles because his patrons are cheerful. They have a friendly

greeting, often stop to chat.

Buck is a veteran of Clifton, one of Arizona's oldest mining camps. From his station he can see the huge smokestained smelter chimney down the canyon, towering high above buildings and trees. When the stack was cold and smokeless he was glum and there was a spell of gloom over his neighbors. For five years he had watched the chimney, vainly hoping that each day it might send out its ribbon of white again. In October he saw the smoke once more. His spirits soared with the sign of renewed life.

Heavily loaded trucks roll past Buck's station all day. The railroad engine, which used to come by in mid-afternoon with only a day coach in tow, now chugs past long after nightfall, slowly pulling a quarter-mile train of ore-cars. New customers stop daily at Buck's pumps. The old mining camp on the edge of the desert has been saved from becoming a ghost town-it is beginning

to roar again.

Fortune Invested

Behind the change is a significant decision which was voted in the director's room of a great mining corporation. The Phelps-Dodge Corporation decided to spend nearly \$29,000,000 to lay bare a new low grade copper ore body on the mountain above Morenci.

Phelps-Dodge was an old established company in 1880 when it commissioned Dr. James S. Douglas to report on the advisability of taking stock in the Detroit Copper Company, then operating in Clifton. The Corporation took over during the following half-century practically all the mining properties in the Clifton-Morenci district. It is now the foremost corporation engaged in Arizona's copper extraction industry, and the second largest copper producer in the world. It has mines and smelters in seven widely separated parts of the state, with headquarters at Douglas. H. M. Lavender is general manager and E. Wittenau is superintendent at Mor-

Slowly at first, but with mounting speed, people and machinery began to move in the White mountains of eastern Arizona. Activity has now almost reached its peak. Hundreds of people

found employment.

Awalt has lived in Clifton 36 years. Dozens of others can beat his record for continuous residence under the red rock cliffs which give their town its name. They live long and healthily, seem to thrive in spite of the ebb and flow of mining camp history. The aging service station man feels the pulse of his community, for its life blood flows past his door.

He sits in his squeaky padded swivel chair in the evening when business slacks at the pump, watches the windblown smoke issue from the distant

chimney in the fading light until darkness blots out the scene. His son-in-law stops after the stag banquet the Big Boss spread for employees at the repaired smelter. Other young people drop in to exchange small town gossip. They are acutely concious of the Corporation (the PD they call it); they know something is "breaking" on the

To them the PD is a job, relief from government largesse, a benefactor and protector. They will have no sympathy with politicians who vocally strangle Big Business. They know that big corporations are necessary in the mining and reducing of copper ore.

Last April W. A. E. Hult, employ-

ment agent for the PD, opened an office in a little green shack in Morenci and began hiring men for the Corporation. This was the first indication that something unusual was about to happen. Only about 100 men had been on the PD payrolls since 1932, keeping the

Peter Riley, No. 1 Citizen of Clifton, welcomes new activity enthusiastically



mass of equipment at mine, mill, and smelter in some kind of order. Within a few weeks hundreds of men had joined them.

By fall 250 men were at work on the mine proper and an army of 700 men was working on the PD properties at or near both towns. Then employment was suspended; Hult hung out a "No Help Wanted" sign. The general manager made public announcement that "ample personnel is available in the Morenci-Clifton district to fill all positions for many years to come."

No Vacancies Now

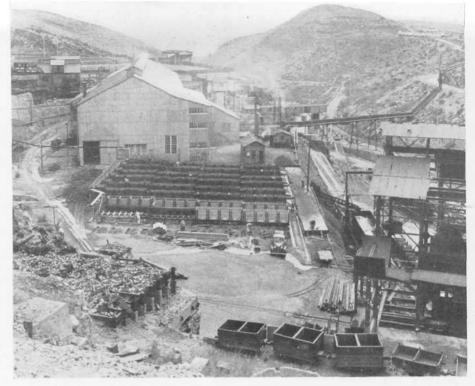
Mine veterans came from PD's Ajo property to form a nucleus for the Herculean man power necessary for the job. A crew of 28 men put in power lines for the steel behemoths. Boiler makers, machinists, carpenters, shovel operators, welders, truck drivers passed before the critical eye of Employment Agent Hult.

In mid-October, when work was progressing with full shifts, the price of copper dropped. PD managers announced a wage cut of five percent. Labor accepted this news philosophically. The workers recalled the five wage increases of the past year.

When work began in the spring there was no fanfare of trumpets, no announcement to the press. But it became more and more evident to watchful residents of Morenci and Clifton that the PD was going places.

Look at the background of these two mining communities. Morenci, named for the Michigan home town of William Church, an official of the original Detroit Copper company, is the mine town. Its ancient brick office buildings, steel

Mountains are being leveled at the great Clay ore body operation



Bins were built at the Morenci mill to extract copper from fire-water

mills, and wooden shacks cling to the slopes of barren mountains. It is owned, body and soul, by the PD. A picturesque reminder of Morenci's original transportation system may still be seen on the steep paths as burros deliver precious stove wood from house to house.

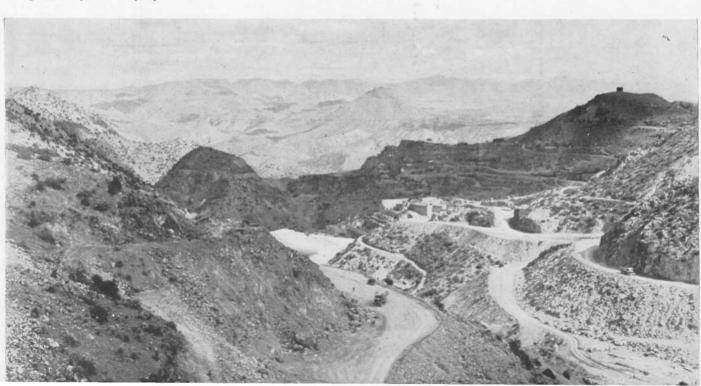
Clifton, taking its name from Prospector Charlie Shannon's allusion to "a town under the cliffs," is seven miles away by WPA highway and 2100 feet lower on the mountain. It is spread along the banks of Chase Creek and the San Francisco river, pressing hard against the cliff. Clifton is the smelter town; it has no mines. Most of its body belongs to PD; its soul is its own. It also has its picturesque reminder of antiquity in the two-celled rock-hewn dungeon jail near the postoffice.

Both towns were saved from extinc-

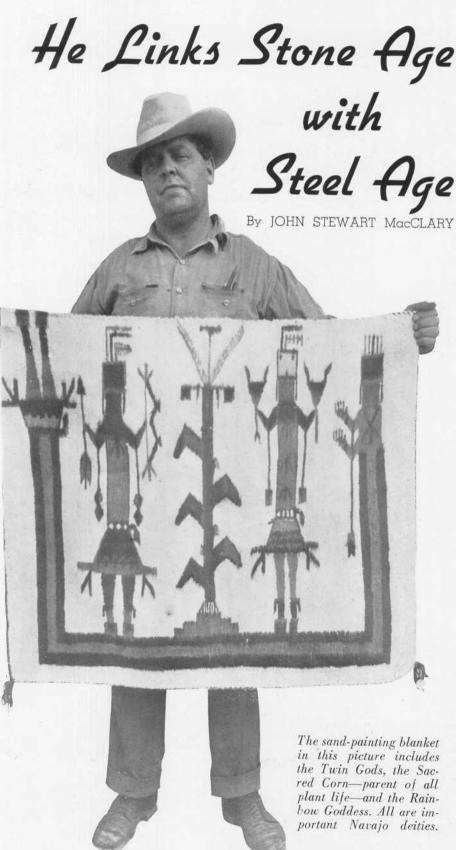
tion by the New Deal. Its 100 per cent Democratic constituency cashed in for five long years, acquired new streets and sidewalks, built massive bleachers and rock-walled recreation fields on reclaimed river bottom and mountain top. Five years of boondoggling, waiting for the mines to open, grew wearisome. Hope of returning to PD employment brought new vitality to Clifton and Morenci.

As spring turned to summer the purposes of the PD began to take form. Rumors of millions to be spent in opening up a new body of low grade copper ore strengthened the citizenry's depressed courage. Buck Awalt heard some of these whisperings, which turned to certainty when the high command an-

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Forty years of trading with the Indians in the Southwest country has taught Will Evans many things, both about the Indians and the desert. Some of his conclusions are quoted in the accompanying sketch by John Stewart MacClary, who has been a "pal of the trail" with the trader on many excursions. Evans is trader, collector, legislator, artist and student—a man whom the readers of the Desert magazine will want to know better.



66 ROM YOUR description of Will Evans," remarked a friend of mine, "I can't make out whether the man is a two-gun Indian fighter or an intellectual storekeeper!"

It's rather difficult to describe without bias a pal who affectionately addresses me as "ol' trail-mate." When I think of his steady blue eyes and the firm lines of his jaw, I can visualize the fighting leader of any cause he considers just. But a two-gun Indian fighter of the frontier type—hard-riding, straight-shooting, hard-drinking—never could have won and held the loyal friendship of shy Indians out in the desert for forty years. The Indians respect Will Evans.

The "intellectual storekeeper" role does not fully portray the character of the man. Yes, he is a storekeeper. His trading post provides home and livelihood. Intellectual by nature and by self-development, Will Evans has vision far beyond the side-meat and beans of his business enterprise.

Blankets to Curly-Head

Navajo Indians trail in from great distances, bringing blankets for Chischilli - Curly-Head - they call him. They know they will receive fair treatment at Shiprock Trading Company. With confidence they offer their humble wares to the friendly trader, secure in the knowledge that he plays the game as they like it played. Long-haired Navajo medicine men from remote spots on the reservation express admiration for the numerous patterns of sacred sand-paintings which Will Evans has recorded in oils. It may seem strange and somewhta fantastic, but individual medicine men have come long distances for the opportunity to inspect patterns whose details they may have forgotten. Will Evans' "library" of sand painting mythology is one of the finest in the world.

The Indian trader links the Steel Age with the Stone Age. He has greater influence with the Indians than missionaries and Government employes. Theoretical benefits of Christian civilization are preached in the missions and taught in the schools, but practical application is practiced in the Indian trading post. It is there the Indian learns to want and to use the Steel Age products which can make his daily life easier and more pleasant. There he learns to employ the white man's Golden Rule.

Wins in Politics

Will Evans not only has the respect of the Indians, but also the confidence of his neighbors of the white race. In 1929 he announced his candidacy as a Republican for the New Mexico state legislature. Normally his home county of San Juan polls a Democratic majority of almost 500 votes. When the ballots were counted he had won by 211 votes' majority. The Indians were not permitted to vote in those days.

During his two-year term in the Legislature, Evans served on committees on Mining, Agriculture and Irrigation. He initiated and brought about the passage of a bill authorizing retention by the state of 50% of all archaeological treasures discovered within the boundaries of New Mexico, thus limiting the removal of prehistoric valuables from the region in which they belong. He was active in pushing through legislation which granted funds for preliminary surveys for dams across the San Juan river, New Mexican tributary of the Colorado. When constructed, this project will provide irrigation for some 100,000 acres of fertile land.

So much for Will Evans as trader and law maker. And now we will meet him in his home—the real test-ground for the character of every man.

We'll visit him in the evening—when Indians, wool buyers, tourists and traveling salesmen have departed from the big trade room. If we had not already dined we would accept the hearty invitation of Mrs. Evans—and we would soon realize why Will and his three grown sons are filled out to match the more than six feet of height which each possesses. Hard work and desert breezes have built healthy appetites. Mrs. Evans knows how to satisfy them.

The desert evening is cold, but thick adobe walls have barred the winter air and the big fireplace cuddles a husky log from the distant mountains. Southwestward a few miles, through the window we can see the majestic bulk of the Shiprock, towering above the moonlight-flooded desert. In such a setting it is not difficult to understand the almost superstitious veneration of the Navajos for the mysterious natural monument.

Like most men who have matured in the desert, Will Evans is no waster of words. Least of all will he talk about himself. But if we can coax a few reminiscences from between his lips, the gain may be worth the effort. So we ask:

"Has the desert changed much in the time you've known it, Will?"

"No, the desert hasn't changed of its own accord . . . it has been changed by alien influences—by human beings who didn't understand it. That's why we now have gullies and arroyos where once we had grass enough to cut for hay. Overgrazing.

"Progress is inevitable, but abuse is inexcusable. The greedy sheep-growers who sowed the wind are reaping the whirlwind."

"Will, have the Navajos changed in the time you've known them?"

Indians Better Off

"Very little, I think, below the surface. Most of those who have been in school understand simple arithmetic. The young ones can speak English, when they choose—which is only when absolutely necessary. They have better medical care than they did in the older days. Yes, I guess they're better fitted for modern living conditions."

"When did you first enter the Indian trading business?"

"I started trading with the Navajos in December, 1898. At that time there was no trading post east of the Lukaichukai mountains, the nearest being across the range. The Indians on this part of the reservation were compelled to make long trips across the mountains

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The Navajo Trading post of Will Evans, situated out on the New Mexico desert near the famous Shiprock.



HE KNOWS HIS DESERT



JOHN STEWART MacCLARY

"I DUG three miles of post holes in soil so dry I had to haul water from a spring three miles away to moisten the earth so I could get it out of the holes. Half a mile of the fence crossed a limestone mesa where I had to use a spud-bar to gouge the holes in the rock."

This was John Stewart Mac-Clary's introduction to the desert nearly 25 years ago. But his experience with the post-hole digger did not discourage him. He liked the desert so well he stayed, and his stories of the desert have appeared in more than 50 publications.

He wrote the "Feel of the Desert" series which is now appearing in the Desert Magazine, and there will be other manuscripts from his pen.

An accident in 1929 left him paralyzed, but despite this handicap his alert mind and love of all things pertaining to the desert, plus the loyalty of a wide circle of friends, have enabled him to continue his writings.

He knows the Navajo Indians and their problems intimately, and his interests include both the lore and the sciences of the desert land, especially the arid regions of New Mexico, northeastern Arizona, Utah and Colorado.

MacClary was born in Lexington, Kentucky, in 1901, but his home for many years has been at Pueblo, Colorado.

The publishers of Desert Magazine are happy to present Mac-Clary, both as a sterling fellow and an able writer, who knows whereof he writes.

Trucks Roll Again at Clifton-Morenci

Continued from page 17

nounced that the Corporation would spend \$28,000,000 in developing the Clay ore body near Morenci. To Buck that sounded like New Deal figures. But he was delighted to note the stimulating effect the anticipated payrolls had on himself and his neighbors.

He learned that a new technic would be introduced on the mountain, that \$5,360,000 would be spent to strip millions of tons of rock from a rugged area of mountain tops and gulleys a mile long and three-quarters of a mile wide. But this gargantuan blasting and shoveling was only a preliminary job, he heard.

Ten miles of narrow gauge railroad track connecting the towns was ripped up and standard gauge rails were laid in its place. New equipment, part of an expenditure of nearly \$6,000,000, was shipped up the mountain on the strengthened roadbed.

Huge Machines

Two electrically operated shovels were assembled in Morenci while workmen razed a long row of buildings in a narrow street to permit the modern mammoths to reach their feeding grounds on the pit. They are so large they pick up four and a half yards of rock at a scoop and load a 40-ton truck in five bites.

Electric churn drills which gouge nine-inch holes deep into the side of the mountain are an innovation to the camp. According to officials, the greatest single expenditure will be \$9,450,000 for a new mill halfway down the mountain and a water supply system which includes tremendous pumps for a 1000-foot lift and a 22-inch pipe line from the San Francisco river. In addition, outlay for a new smelter and power plant was estimated at \$7,100,000. These were figures to make Buck and his cronies dizzy.

A painter who earns \$6.50 a day at his trade likes his bosses, finds no fault with the working conditions, and nurses his pet grievances against the PD mercantile store at Morenci. He compares high prices and slow service in the company store with lower figures in the privately owned stores in Clifton, then cheerfully spends twice his saving in gasoline to trade down the mountain.

The young lady who resides in the outer office of the mine building takes an active interest in the social life of Morenci, is enthusiastic about the new dancing club and hopes the Presbyter-

ian church can resume activities this winter. She points with pride to the new townsite of Stargo where 50 new four-room cottages with gleaming copper roofs are under construction.

A burly driver who masters one of the 14 new 40-ton trucks hopes to live in one of those houses, recites the luxury of well-lighted streets and room for the kids to play at the park and tennis courts. Stargo, he confides, is a million dollar investment and may be the beginning of a wholesale junking of Morenci's half-century-old residential hulks.

No. 1 Dynamite Man

Shy and modest is the young man who bosses the power crew on the Clay ore body. Although his face indicates the age of a university sophomore, he has the reputation of being one of the canniest dynamite men in the business. It is said he can blast solid rock from between two closely set houses without breaking a window, that he possesses an instinct for placing dynamite which veterans seldom acquire with long experience. He uses 10 to 50 tons to each blast on the mountain—and every pound does its prescribed work.

From Ajo came the chief mining engineer, a serious young man who knows his responsibility and shuns publicity. Neither he nor any of his men, he declares, deserves credit as individuals in this great undertaking. This job is the pooling of many minds, hundreds of strong backs, and vast capital. For any employee to step into the limelight would be violating the rules of the game. He strongly intimates that the individual would get about as far as the quarterback who tried to buck the whole opposition team without interference.

The engineer quotes many figures, points out that the layer of millions of tons of rock to be removed from the surface of the copper ore body is from 12 to 452 feet deep. Well-graded roads had to be built at the pit, to be supplanted later by railroad lines for ore haulage. From the mountain top where one of the shovels is operating he points into a deep canyon and beyond to a distant ridge, a vast broken area which will eventually be laid bare. Here man will not merely move a mountain; he will move many mountains.

The job of rock removal is made difficult by a ruling which prohibits

dumping refuse on a possible ore body. The ponderous trucks must take their loads to a distant spot. Before the stripping job is complete they must make approximately one million trips. Imagine how many hours this will take, how much gasoline will be consumed, how many tires will be worn out, how many foot-pounds of human energy will be exerted!

Mountain of Ore

Estimates of the extent of the Clay ore body vary. Corporation geologists have proven by extensive scientific exploration that there are at least 245,-000,000 TONS of low grade ore in one great mass. Arizona's WPA-fostered State Planning Board was more liberal in its published estimate of 300,000,-000 tons, adding that "there is from 20 to 25 pounds of recoverable copper in each ton, which will be produced for between eight and nine cents a pound. The total known reserve of copper ore is about six and a half billion pounds, which may be extracted over a period of fifty years. The ore body constitutes one of the largest unexploited medium cost reserves in the world."

The significance of these staggering figures can be judged in comparison with the report that it took 30 years to dig 75,000,000 tons of ore from the copper pit at Ely, Nevada, widely acclaimed as "the largest man-made hole in the world." Just for another comparison, the Clifton-Morenci district has produced since its discovery in 1872 only about one-third the amount of copper which PD expects to scoop out of the Clay ore body.

Blasts on the mountain awaken memories cherished by old-timers of the district. They recall World War days when the government pegged copper at 26 cents and pleaded with producers to run their mines and smelters at capacity. In the 1918-1920 period population of the Clifton-Morenci-Metcalf district was near 18,000.

A. A. "Pap" Anderson, one-time sheriff of Graham County before the mountain district divorced itself from Greenlee county, came to Cilfton in 1899 and has lived beside the San Francisco most of the time since. His reminiscences of bad men and stirring events of camp life would fill a thrilling book.

He can recite with appropriate names and dates how Shannon, Stephens, and the Metcalf brothers found copper in the canyon when they searched for gold, developed ore so rich it yielded 50 per cent copper. He remembers the typical ups and downs of the mining camps, enlivened by the escapades of bad men, enriched by the consolidation of mine properties, and endangered by too frequent floods of the San Francisco river. Anderson can dwell on the virtues of Charlie Shannon or the vices and eccentricities of Climax Jim. He can take his listener into the historic dank and fearful dungeon jail at Clifton or into the intricate corporate structures of great mine companies.

Every town has at least one person who cheerfully shoulders more than his load of civic and fraternal responsibilities. Clifton has its No. 1 citizen in Peter Riley, a friendly and vigorous postmaster as Irish as his name.

Riley was mayor in 1926 when the Clifton-Springerville highway over the White mountains was completed. He had the imagination to name the route the Coronado Trail and the energy to promote a dedication ceremony which attracted 5000 visitors and featured an Apache Indian dance of 600 braves and squaws.

He is the mainstay of the Commercial club, the Elks and the Legion and serves as enthusiast and counselor for every new community activity. As WPA director he caused a \$48,000 ball park to be built in Clifton and another in Morenci on which football teams of the respective high schools stage their combats. Riley went to Clifton 30 years ago as a baseball player and stayed to become a town leader and chief refreshment dispenser, hence what would be more natural than that he and the boys should promote night ball games on the recreation grounds?

Interesting Personalities

The visitor finds a wealth of interesting personalities in Clifton. There is, for instance, Adam Smith, real estate man, who has watched new faces come and go for nearly half a century. And the Wong family still operates the American Kitchen after 45 years of friendly Wong service. Beautiful Flora Wong bears a striking resemblance to famous Anna May Wong of the films. And the blonde girl at the drug store fountain hopes the abominable 30-mile road up* the mountain from Safford will never

be repaired "because it keeps the bums and peddlers out and keeps the customers at home." Black Jack, Climax Jim, Kid Lewis, and Cyclone Bill aren't around any more but their notorious memory lingers.

To mention personalities and not include Jack Farrell, one of the first master mechanics on the mountain, would be a gross error. And no town's history is more colorful than Clifton's gallery of the mighty: Henry Bill, Jim Calhoun, Poston, Carmichael, Solomon, Lesinski, and many others prominent in Arizona's territorial history.

Metcalf, one-time northern terminus of the shortest and most profitable railroad in all the American systems, has gone the way of all mining camps. But Clifton and Morenci, bound together in strengthened ties of brotherhood, have take a new lease on life. Under the paternal hand of the PD, they are finding much-needed nourishment in the rich mountains and the meal ticket is marked "Good for 50 years." No wonder Buck Awalt and his neighbors are smiling!

Milking Time for the Rattlers

Continued from page 12

points and is caught in the bowl.

"Often the snakes will eject the venom voluntarily by contracting the muscle surrounding the sacs," explained Thatcher. "Otherwise the ejection can be forced by pressure on the reptile's head at the base of the jaw. Ejection normally is under the wilful control of the snake." The venom is a thick yellowish fluid.

There is a market for rattlesnake venom. Hospitals have paid as high as \$25 an ounce for it. They use it in making antivenin for the treatment of rattlesnake victims. Another use is in the treatment of haemophilia, a condition in which the human blood will not coagulate and a minor wound may cause the victim to bleed to death. This malady has been the curse of at least three royal families in Europe.

Thatcher has found that a three-foot rattler will produce a cubic centimeter, about 10 drops, of venom every two or three days when well fed and in good health.

The captive snakes are fed rats and mice, and will eat small birds if given a chance. The life-span of caged snakes is uncertain. Sometimes they refuse food and unless released will die in a relatively short time. How-

ever, they may live for months without food. They can be kept in confinement for years when proper nourishment is provided and they have no inhibitions against accepting it.

But milking rattlesnakes is not Ted Thatcher's main occupation. It merely is a sort of sideshow attraction which gives the visitors to Lehman caves an extra thrill.

The caves are the main drawing card and while they are not the largest caverns to be found in the United States they offer a fantastic maze of stalactites and stalagmites which attract hundreds of visitors during the summer season. They are open throughout the year but occasionally are inaccessible because of snow.

Lehman caves are located at the eastern base of Mt. Wheeler, highest peak in Nevada, 70 miles from Ely and six miles from the little town of Baker.

Public spirited citizens of White Pine county bought the property and presented it to the federal government in 1934. For a year it was under control of the U. S. Forest service, and then was turned over to the Park service as a National Monument.

Thatcher, a graduate of Utah State Agricultural college, formerly was with the Forest service, but transferred to the park department and was assigned to the Lehman caves in March, 1937.

The caves were known many years before the government acquired ownership, and the legendary history attached to them includes weird tales of their previous occupancy. According to Indian myth a Redskin brave and his sweetheart were wandering over the mountain when they came by chance to the entrance of the caverns. Their curiosity led them to enter and they were promptly seized by a blue-faced dwarf who devoured them and tossed their bones outside of the entrance. This tale gave rise to the belief, even among modern Indians of the district, that a little blue-faced man dwelt in the caves and brought death to their children and pestilence to their tribes.

Ted Thatcher and men of the Park service are planning many improvements at the caverns, designed to make them more accessible and attractive to visitors. In the meantime those in charge are greeting all who come with the courtesy characteristic of park rangers. And if you are lucky enough to reach there on "milking day" for the rattlesnakes the trip will be doubly worth while.

Men Who Carve Dolls

Continued from page 15

The dancing with live snakes is no fantastic mummery. It is a devout plea to the gods for the blessing of life-giving rain. The snakes are the trusted messengers which carry to the gods, whose abode is the mysterious underworld, reports of the urgent need for water on the sun-baked desert in August.

The ceremonial had its origin in a prehistoric legend, cherished and revered by the Hopi Indians. So much has been written describing the ceremonial and its significance, repetition here would seem monotonous and uninteresting. Most public libraries have on file numerous books and magazine articles telling the story.

The snakes which are gathered as messengers to the gods are of every variety known to the Arizona desert. There are long fat bull snakes, short stubby rattlesnakes, slender sidewinders—the species seems to make no difference. Some have deadly venom. None is a desirable bed companion, but all are partnered indiscriminately for the dance.

Perhaps no single phase of Indianology has been productive of so much speculation as has the mystery of how

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the Hopis escape lethal injury from the poisonous reptiles. Fanciful tales of secret ointments which are snake-repellant; the incorrect supposition that fangs and poison sacs are first removed; a theory that snakes are able to strike and eject venom only when they are coiled, which is physically impracticable when dangling from the mouth of a dancing Indian. These, and numerous other explanations, have been advanced—by white observers. The Hopis have remained mute on the subject.

Recently there came to me, from one whose veracity is unquestionable, an explanation of the matter given to him by an educated Hopi. For the entire day and night immediately preceding the ceremony, said the Indian, each snake to be used is tantalized and infuriated by a long pole carrying a large piece of beef liver. The provocation causes the petulant snake to strike, injecting his lethal venom in the inanimate flesh. Frequently repeated over twenty-four hours or so, this treatment surely should reduce the vigor of even the most belligerent rattler, and might even empty his store of venom.

The explanation seems plausible. Whether authentic or not, it at least is a new answer to a question which long has been unsolved.

The Hopi Snake Dance is an annual event, usually celebrated in the latter part of August. No regular date is assigned—for the medicine men must have reasonably definite atmospheric assurance that rain may be expected shortly following the demonstration.

In years of odd numbers the ceremony is staged at the pueblo of Walpi. In even numbered years Oraibi pueblo is the site. The place and the date always are published nationwide two or three weeks in advance of the performance.

Visitors are made welcome, as long as they comport themselves with the dignity and respectful attitude due a group of people at prayer. The guests, however, are not allowed the pleasure of making photographs of the ceremony.

For reason or reasons known only to himself and never publicized the Great White Father at Washington says: "Make no photographs of the Hopi Snake Dance!" So, if you take a camera with you—and every tourist does—you either check it peacefully or surrender it regretfully.

Christmas — 1775

Continued from page 6

shoulder and pointed. As they stood the light flooded about them. They gazed in wonder. The horses moved restlessly and the cattle made a fretful moaning.

The dozens of tents scattered about the canyon floor were dark—save one. There was a dim light within the small room. A man paced beside it. The watchers heard the sound of voices from within and the low moan of a woman.

"What is the time, Manuel?" asked

"I make out one-half hour before midnight."

The cry of a babe came from the tent. The two men looked at each other and smiled. "Ygnacio may stop his exercises now," Manuel said.

Christmas Day dawned bright, the first fair weather the expedition had seen in many days. Father Font, the chaplain, rejoiced that he had an opportunity to admonish his children. He said three Masses, taking occasion to rebuke the men for the drinking of the evening before.

After the final Mass, Ygnacio Linares, the soldier, brought a small snuglywrapped bundle to the priest. Devoutly the people kneeled as the Father baptised the new-born boy, naming him Salvador Ygnacio Linares.

All day the expedition rested in the canyon, celebrating the birth of the Infant Jesus and rejoicing at the safe deliverance of one of their own party.

As the sun sank on Christmas Day, the proud father stood with Manuel and Pedro, looking northwest at the crest of the Sierras. Pointing, he said, "Tomorrow we shall cross the sierras and in a few more days we shall be building our homes on the great bay. And we shall raise our children and found a great civilization."

"We are but common soldiers and are not given credit for much wit. but I do believe we have seen a good omen," said Manuel. "Last night we saw a bright star. The Father tells us that long long ago a star shone on the desert for three common fellows. We have left many hard days behind and we shall have many more ahead. But that star gives us hope."

Little did the three men know that their hopes would be fulfilled, that from the homes they were to establish would grow the great city of San Francisco.

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3 HOURS FROM LOS ANGELES

Palm Springs,

Who Knows Where this Cabin is Located?

THIS month the Desert Magazine presents another "Mystery Spot" for identification.

Do you know where this picture was taken? Are the palm trees natives of the desert or were they planted by human hands? Who owns the cabin? What is its history?

According to an unconfirmed report which has reached the office of the Desert Magazine the little cabin in this picture recently has been burned to the ground. However, it stood at the location shown in this photograph for many years and has been seen by hundreds of visitors.

The only clue to the location of the cabin and palms is that they are located on the Colorado desert of Southern California.

The "Landmark Contest" feature of the Desert Magazine has stirred much interest among readers and many answers have been sent in identifying and describing the picture shown in the November issue. The winning November answer will be published in the January issue of this magazine.

PRIZE OFFER

To the person who sends to the Desert Magazine before December 20, 1937, the most accurate identification of the above picture together with the most informative story of not over 300 words telling the history and facts about this "mystery spot" a cash prize of \$5.00 will be paid.

Writers should give the source of their information, stating whether the facts quoted are a matter of authoritative record or merely hearsay.

Answers should be written on one side of the page and addressed to Landmarks Department, Desert Magazine, El Centro, California. The name of the winner and the text of the winning answer will be printed in the February issue.



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The Nevada-California Electric Corporation

Gold Builds a Road

Continued from page 9

alty testifies to the resourcefulness of Bradshaw's character.

History does not relate whether Bradshaw operated his own stage equipment but it does describe his ferry on the river. He had a profitable monopoly. It was in defense of this monopoly that Bradshaw met his death.

Beginning in September of 1862, Warren Hall and Henry Wilkenson started a stage line for the Alexander Company of Los Angeles, agents for the Wells-Fargo express company. They brought back to Los Angeles \$6000 worth of gold on their first return trip. Their transportation venture was shortlived, however, for less than a month after starting their stages the partners were killed at Smith's station, three miles west of Beaumont, in a quarrel with an employee.

L. A. Frink and Company of San Timoteo started stages on the road the following February. The history of stage transportation in these hectic days is marred with duels and sudden death. Many hazards beset drivers on the desert road. Government records show that mail contractors for the San Bernardino-La Paz route changed five times between May, 1886, and August, 1871.

Bill Bradshaw was killed in a fight at his ferry on the river only a few months after his road to riches had boosted his name to fame. He was frequently in brawls. His final encounter came when he met a rival who was a little quicker on the trigger.

Soon Worked Out

Within a few years the placers at La Paz were exhausted. A population of 1500 miners worked in the bustling mining town for two years, until the apparent exhaustion of the placers and the extreme high prices of provisions caused many to leave. New diggings were being opened up in the mountains to the east, which drew men in search of even greater riches than they had seen. During those two years the cheapest Indian labor received at least ten dollars a day.

As the placers became barren, travel over the Bradshaw road became less frequent. Fat government mail contracts kept the road in use for several years. The Tomlinson company of Los Angeles got a contract in the summer of 1867 over the Butterfield trail from San Bernardino to Tucson. The following year Walters and Noble had a competing line on the Bradshaw road to Prescott. This rivalry between the old trails continued until the railroad pushed the horse from the scene.

The Southern Pacific completed its line from Los Angeles to Yuma in 1877, thus effectively closing the Bradshaw road and the Butterfield trail, two of the most important roads to figure in the story of the developing of the west.

The modern auto traveler who wishes to scout the eastern section of the Bradshaw road will find the trail slow but passable most of the year—if both car and driver are conversant with sand travel

Where Ehrenberg Died

Dos Palmas is a historic oasis overlooking Salton sea and backed by massive Orocopia mountains. Here Frank Coffey lived for nearly 70 years. Here, George Wharton James reports, Herman Ehrenburg, mining engineer and founder of the river town bearing his name, was shot and killed by an Indian.

At Canyon Springs remains of a freight station and corral still stand on the south bank of the wash. A mile north up a side canyon are the springs which empty into several large pools.

At Chuchawalla wells, 50 miles from Blythe and 42 miles from Dos Palmas, are the ruins of an old station but they are rapidly being scattered by overcurious visitors. This station was one of the most important and strategic on the line and offered fairly palatable water in several shallow wells.

The new paved highway from Indio to Blythe by way of Desert Center provides a wide fast travel artery. The motorist usually covers the distance now in two hours. What a far cry this is from the tortuous sandy trail followed by Bill Bradshaw and the excited miners who "hastened" to La Paz in two or three days!

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Lost City to Vanish Again

Continued from Page 5

"What has happened to the house of our grandfather?" Arrow-Maker asked anxiously, for he noted that only a mound of ruins remained where the building had stood before his departure to the Valley of Fire.

"He is dead," one of the women replied. "We buried him under the floor of his dwelling. In the grave with him were placed his pet wildcat kitten and his belongings. We would have put his body in the ash dump, but it was his wish that he remain in the home he occupied for so many years."

Bit by bit, as the excavations have been carried on at Lost City, the scientists have pieced together this picture of these ancient tribesmen. Not many years after the above incidents in the life of Arrow-Maker were enacted, the people of the Lost City pueblos migrated to other sections of the Southwest. Perhaps it was due to drought. or to the raids of hostile tribes. There can be no certainty. But they vanished from the homes they had occupied for countless years, and time and the elements have conspired to make the task of reconstructing this ancient civilization very difficult indeed.

Work Started in 1924

In 1924, more than a thousand years after the Lost City had been deserted, M. R. Harrington, sponsored by the Museum of the American Indian, New York, began excavations at the site. After two years the work of the archeologists was discontinued.

Then in 1929 the construction of Boulder dam was authorized—and it became known that within a few years the site of the Lost City would be submerged deep in the waters of a new lake to be formed in the basin of the Colorado river. It was evident that the excavations at Lost City must be resumed at once, or such archeological treasures as remained there would be lost to the world forever.

Funds were made available in 1933, and Harrington again was placed in charge, this time as the representative of the Southwest Museum of Los Angeles where he is now curator. With a crew of 32 CCC men and two experienced foremen, the work was carried on under the State Park division of the National Park service. Excavation and research continued during the winter months of 1933 and 1934 and until

July, 1935, when the project was terminated for a brief interval, and then resumed again.

Despite the destruction wrought by time and vandals, over 100 homes have been explored. Shifting sand dunes had buried many of the old ruins, but here and there Indian ash dumps and bits of broken pottery gave clues for the sinking of test holes and the discovery of hidden structures. Some of the old dwellings were found at considerable depth, and probably there are others too deeply buried in the accumulated dust and sand ever to be brought to light.

Old Pueblo Restored

During the 1924 expedition the scientists restored one of the pueblo houses for public inspection. In the spring of 1935 a permanent museum of stone and adobe, located above the high water line of the lake, was erected near Overton, 65 miles from Las Vegas. A replica of an old adobe home was built near the museum, and a ruin of a still earlier period which was found on the higher level, was restored.

Although the Southwest Museum has taken a few of the artifacts from the Lost City to complete its collection, a majority of the relics have been retained for exhibit at the Overton Museum.

Slowly the waters of Lake Mead are creeping up the desert slopes toward the site of the ancient pueblos. If Arrow-Maker and his tribesmen could return today perhaps in their superstitious Indian hearts they would rejoice at the knowledge that their ancient homes and burial grounds are soon to be protected by a barrier which even the resourceful scientist hardly could penetrate. But they would have to admit that the white man has done a very skilful job of restoring and preserving the utensils and the knowledge of their ancient civilization.

LANCASTER, CALIFORNIA-

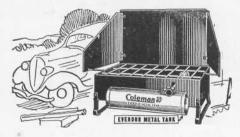
Supervisors of Los Angeles county have petitioned the Secretary of Interior for a 50-year lease on a 1600-acre tract of public land 17 miles east of this city for the purpose of preserving for park purposes a fine grove of Joshua trees.

TONOPAH, NEVADA-

Wes Moreland, former owner of a tavern in Las Vegas has announced that he has bought the old railroad station at Rhyolite and will convert it into a gambling and pleasure resort. Rhyolite once boasted a population of 20,000 but in recent years has been merely another ghost mining town.

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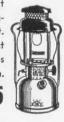
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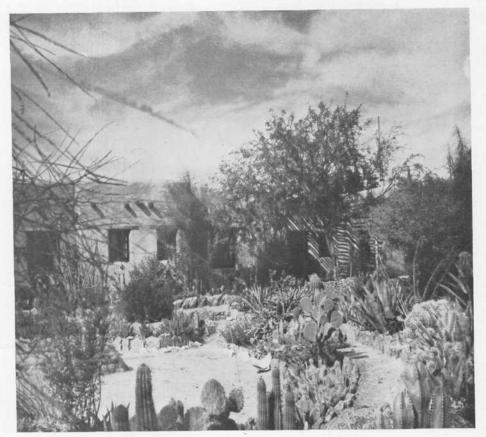


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RAMADA DORCH

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By JAMES GERRALD

Name of Mr. and Mrs. Will H.
Minor near Yuma frames an entirely different view of one of the most beautiful and varied desert landscapes in the Southwest.

Not every home builder can have a two-acre lot at the edge of a mesa, 80 feet above fertile Yuma valley and look out at the panorama of the Colorado winding at the foot of Pilot Knob. But many have observed the good taste and forethought which guided the Minors in planning their unique home.

The five-room house is built of adobe, plastered inside and out. It is definitely western in design, faithfully representing the early Hopi Indian pueblo type. No conflicting note is allowed to mar the outside effect. Native desert shrubbery and cacti are used exclusively, with the exception of lantana and a few other hardy shrubs requiring irrigation—and, of course, a green lawn.

So picturesque and effective is the exterior and its desert setting that the visitor who arrives at dusk is loath to enter. A low rock wall divides the driveway yard from the house front, which is shaded by palo verde and mesquite trees. Mrs. Minor demonstrates that creosote bush not only makes a good hedge plant but when properly trained is a striking climber.

The cactus garden is no mere sprinkling of thorny demons. It is laid in a terraced egg-shaped sunken area with walkways properly arranged for close inspection of the plants. Like a showcase display, every specimen shows individually without crowding, yet the whole exhibit may be seen and not touched.

A lawn flanks the west side of the house, extending to the rock retaining wall at the edge of the mesa. A ramada provides comfortable chairs where the incomparable desert sunsets may be viewed with ease.

A semi-outdoor feature which is an important asset in summer is the patio, which the hostess calls her outdoor living room. It is covered with rustic logs and thatch, is close to the kitchen for hot-weather meals, provides a service porch and connecting passageway between house and garage.

Chief features of interior design emphasize free air circulation and large windows. The large living room (26x15) is central, with bedrooms on

Turn to opposite page

WANTED

DESERT PICTURES

Prize contest announcement

O THE amateur photographer who sends in the best photographic print each month the Desert Magazine will pay cash prizes of \$6.00 to first place and \$4.00 for second place winners.

There is no restriction as to the place of residence of the photographer, but prints must be essentially of the desert.

Here are the subjects which will be favored by the judges:

Close-ups of desert animal life. Close-ups of desert flora.

Unusual personal or candid camera pictures.

Desert homes and gardens. Strange rock formations.

Exceptional pictures of desert water-holes and out-of-the-way scenic places.

While other types of pictures are not excluded, the above will be given the preference.

Rules governing the contest follow:

1-Pictures submitted in December contest must be received in the office of the Desert Magazine by December 20.

2—Winners will be required to furnish original negatives if requested.

3-Prints must be in black and white, $2\frac{1}{4}x3\frac{1}{4}$ or larger.

4—No pictures will be returned unless postage is furnished.

For non-prize-winning pictures accepted for publication \$2.00 each will be paid.

Winners will be announced and the prize pictures in the December contest published in the February issue of Desert Magazine.

Address all entries to

Contest Editor, Desert Magazine El Centro, California

RIBBONWOOD

A DIFFERENT PHASE OF THE DESERT

In the Mountains Above Palm Springs

Sez Hard Rock Shorty of Death Valley

By LON GARRISON

THESE here scientists is sure funny animals!" crowed Hard Rock Shorty as he finished reading last week's newspaper. He was roosted mainly on the back of his neck, well in the shade of the store porch, and he moved a little so he could talk better.

"I just was readin' here in the paper about boilin' beans in fifteen minutes in a steel pipe with caps on 'er, an' that reminds me o' them three guys that tried to have boiled eggs for breakfast up on Mt. Whitney last summer.

"They had to pack all the wood about two miles, an' they'd a good pile all right, but they forgets about the elevation an' the boilin' point, an' in three minutes them eggs ain't even curdled. They just laughs about it then an' cooks 'em ten minutes but they still ain't done. So one of 'em gets mad an' vows he's gonna cook them eggs if it takes all year! The other two pack wood, an' this'n sits there pokin' the fire.

"An' Sir! Do you know that they boiled them eggs for three weeks an' they was only one left they hadn't tried, an' just as they was about to open it, it hatched! Yes, Sir! An' so they had chicken soup.'

Western Adobe Home

Continued from page 26

one side and kitchen-diner on the other. An interesting note is that one may stand on the flagged entry patio and see the sunset colors framed in the great west window of the living room.

Atop the adobe walls heavy pole joists and planked ceiling are laid. Tile flooring is used throughout. Interior decoration is simple and harmonious with the western theme.

Outside dimensions, not including the two-car garage and guest house, are 65 by 47 feet. The Minor investment for home and landscaping is over \$15,000. Cost of house construction will vary, according to location, between \$8000 and \$10,000.

SAFFORD, ARIZONA-

Workmen excavating near the William Nelson home at Solomonsville recently unearthed an ancient Indian olla and human skull. Other relics have been found in this same vicinity, leading to the belief that the elevation on which the Nelson home stands is the site of an ancient burial ground.

TREASURES OF THE DESERT Paul's Pure Dates

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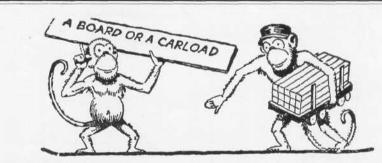
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You'll like Brawley, the center of a great, health-giving desert.

(This is the first of a series of advertisements telling of interesting places and recreational facilities around Brawley.)

For More Information Write:

Chamber of Commerce BRAWLEY, CALIFORNIA

He Links Steel Age With Stone Age

Continued from page 19

on horseback, hauling wool and hides and blankets which they exchanged for food and clothing.

"Joe Wilkin, an experienced freighter, was granted a license to open a trading post on this side of the Lukaichukai. He employed me to go along and help with erecting the first Inlian trading post on this part of the Navajo reservation.

"Early in December, 1895, we started from the Mormon settlement of Fruitland. New Mexico. We drove two fourhorse teams, drawing wagons heavily loaded with building materials and trading goods. Ed Dustin, of Fruitville, owned the teams and was one of our party. He drove one team. Joe Wilkin and I took turns driving the other. We forded the San Juan river and headed west.

"Indians on this side had not been issued Government wagons. There were no roads. We followed horse trails when they led in the right direction—made our own when none could be found. At the end of three days we had covered the forty miles between Fruitland and Sa-Noss-Tee, where the trading post was to be built. We pitched camp in a snowstorm. In the morning there was about a foot of snow on my bed!

"Within three days we had the oneroom building erected, shelving installed and merchandise put away. During part of that time Ed sat on the roof with a Winchester in his hands driving away a little band of Navajos who wanted no trading post.

"Here was the situation when Joe and Ed left me alone in the desert—taking the horses and wagons back to the river. The ground was blanketed with snow. The Indians were not pleased by the trading post. The silence was so deep I could almost hear it. Not a message from the world outside; not a white visitor to be seen for more than two months. I had an old Hammond typewriter with which I wrote wretched verses and concocted a few miserable stories. And I covered the shelving and walls of the shack with charcoal sketches and drawings.

"The Navajos became friendly, especially around mealtimes, until I used up all my firewood. When I appropriated some logs from a deserted hogan and used them for fine dry fuel, the Indians deserted my fireside and refused cooked food which I offered. One

of the Navajos explained the mystery. A man had died in the hogan, which revealed the reason for its abandonment. The hut was considered a place which had become accursed, and they who came within its baneful influence would suffer untimely death."

"One more question, Will—and this

"One more question, Will—and this is purely personal. You have reared four children into maturity on the desert. Do you believe the environment has affected them in any way?"

"Yes, seriously, I do. Desert life has given them self-reliance and confidence which might not have been developed among softer surroundings. They have matured with strong, healthy bodies, for they have been spared the punishment of vicious habits. They have clean minds and morals—one cannot be mentally and morally dirty in the desert . . . One long look into the awe-inspiring bigness of the desert, cheap and tawdry thoughts are shrivelled in the mind; one long inhalation of the sweet, untainted breeze, one long look into the star bright desert heaven . . . one gains impressions of loveliness that forever will be fresh in memory."

WEATHER

October Report from U. S. Bureau at Phoenix

Temperatures— Degree Mean for month 74. Normal for October 70. Highest October 2 100. Lowest October 20 50. Rain— Inche Total for month Trac Normal this month 0.4 Total Jan. 1 to date 4.9 Normal Jan. 1 to date 6.0 Weather—
Mean for month 74. Normal for October 70. Highest October 2 100. Lowest October 20 50. Rain— Inche Total for month Trac Normal this month 0.4 Total Jan. 1 to date 4.9 Normal Jan. 1 to date 6.0
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Normal Jan. 1 to date 4.9 Normal Jan. 1 to date 6.0
Normal Jan. 1 to date 4.9 Normal Jan. 1 to date 6.0
Normal Jan. 1 to date 6.0
Days clear. 2
Days partly cloudy
W. B. HARE, Meteorologist.
From Yuma Bureau

Temperatures-Degrees Mean for month. Normal for October. Highest October 10. Lowest October 5.... 100.0 53.0 Inches Rain-Total for month. 0.00 67-year average for October. .26 Total Jan. 1 to date ... 3.95 Normal Jan. 1 to date. Sunshine-337 hrs. out of possible 352 hrs. Colorado River

October discharge at Grand Canyon 495,000

Discharge at Parker was 483,000 acre feet. Estimated storage behind Boulder Dam on November 1 was 15,150,000 acre feet. Loss in stored water during October 70,000 acre feet.

JAMES H. GORDON, Meteorologist.

OF YESTERDAY and TODAY —a monthly review of the best literature

of the desert Southwest, past and present.

HISTORY AND MYTH WOVEN INTO STRANGE DESERT TALE

R ED HAIR does not carry its owner to Heaven, but as a help through life few things are better, muses Don Juan Obrias he reviews for his guests on his 100th birthday his own eventful career and the history of his native Lower California.

Not often are fact and fiction so happily married as in the historical novel, "The Journey of the Flame," by Fierro Blanco, Houghton Mifflin, 1933. There may be more delighten by the state of the stat ful versions of the story of the Baja Cali-fornia peninsula and of the Jesuit missions there and their fate after the coming of the Franciscans and Dominicans, but this reviewer

The tale is told by Don Juan, born of an Irish castaway father and an Indian mother in 1798. Don Juan died in 1902 near Rosario, after having seen "three centuries change customs and manners". In the telling the author has woven in a wealth of history, geography, geology, flora and fauna, ethnology and myth-

A fascinating locale—that long arm of land stretching a thousand miles south from the Southern California border, its western coast washed by long rollers from the South Sea, its ports once the haven for high pooped galleons of the plate fleet and British buccaneers who preyed on the tall Spanish ships; legendary home of cannibals and pearl divers; separated from the mainland of Mexico by that Vermilion sea which took its name from our own Rio Colorado at its head. This is the stage on which Blanco's priests and sol-diers, courtiers and Indiada, pearl divers and cannibals, move in a drama at once convincing and charming.

A journey from near the southern tip of the peninsula to Monterey in Alta California, in 1810, gives the patriarch scion of the Celtic seaman the thread on which to string his pearls of mission history.

The book has on nearly every page some gem of felicitous phrasing. The Jesuits, one reads, "felt God had called them to save the souls of millions of Indians who didn't know they had souls and always politely resented having souls forced upon them.

"Force, guile and justice rule this world," the centenarian reminds his guests at the birthday party and he adds, "in that order."

"The earth is round," he says. "So wise men have told me and it must be true. But I do not believe it, nor need anyone."

His story of the creation of Eve is worth repeating, both for its own sake and because it carries the flavor of the book:

God and the Devil stood one on each side of Adam when his rib was extracted for the making of Eve, taking turns to endow the lady with those qualities each approved.

"God, being more a gentleman than His rival, bowed to him and gave Satan first choice.

"Her tongue shall be bitter and always flapping," the Devil said and the Lord added, "But her heart shall be tender."

"Until her brain is developed," chipped in the Devil.

"She shall adore children."

"But dresses still more," added Satan.

"She shall be beautiful."

Satan, and put his thumb to his nose and wiggled his fingers.

"And when she is bad she shall fill all Hell

Thus it is due to this quarrel between those who endowed Eve, that either forgot to grant her good judgment and honor, concludes Don

-T. H. LAMB.

"And therefore idle and useless," consented

"Get thee gone to thy Hell, Foul Fiend," roared Our Lord. "Men shall call her an angel."

with Envy," shouted Satan, flipping up his tail and diving under a cloud.

THEY MADE HIM WEAR WHITE MAN'S SHOES

NAVAJO boy, Seeing Warrior, who was born to Walk With Beauty as he was taught to pray in the mystical chant of his people to their gods, instead finds himself at the age of eight wandering like a sleep walker between the forbidding brick buildings of a government Indian school. He is dazed. frightened, shorn of his hair like a sheep, and outraged in all his finer feelings by the careless and casual handling he has undergone at the hands of matron, doctor and teachers.

He stops and looks down at his feet which are now encased in heavy, hard leather boxes . . . Walk With Beauty.

He has been through all the years of his remembrance Big Salt's Son. From henceforth he must answer to the meaningless name of Myron Begay. How he survives the first initiation into the Spartan discipline of the school and makes two friends, one an Indian boy like himself, the other a sympathetic, more understanding-than-ordinary missionary, and the effect of these friendships and of his years in Indian schools on his own later life is an absorbing narrative of a boy's inward struggle to maintain his spiritual integrity.

In "The Enemy Gods," Houghton Mifflin, 1937, Oliver La Farge creates the first Indian novel which has come from his pen since "Laughing Boy" won for him a Pulitzer prize and a host of readers. The bright, high color, warm laughter and pure boyish pagan joy in song, movement, work, companionship and the ritual of The Chant which set "Laughing Boy" apart are lacking in "The Enemy Gods", as is also the near-melodrama of the earlier book's plot. In their place is a more mature purpose; a greater seriousness.

In his preface to "Laughing Boy" La Farge states bluntly that the story is told for its own sake and is not propaganda. "The Enemy Gods" seems rather to be a carefully and artfully wrought vehicle to carry its author's convictions.

The central theme of "The Enemy Gods" is the struggle of the hero to find a life for himself among his own people and peace for his soul after the years during which he was taught to despise all that was Indian in himself; to take an alien name, along with the language, religion, clothing, habits, moral and social codes, and finally almost the thoughts of his teachers. The struggle is prolonged into his early manhood and at last results in

his admitting to himself that he is less than zero. He has cut himself off from the whites and his own people distrust and fear him. In the end through vigil and suffering he conquers himself and finds peace.

Trained at Harvard in anthropology, Oliver La Farge has devoted years to field study among the Indians of Arizona, New Mexico and Guatemala and is now a director of the National Association on Indian Affairs.

The life of the Indian-shaped by seasonal change, swinging back and forth from winter to summer hogan, from sowing and shearing through hoeing and tending of crops to reaping and weaving-is pictured by the author from an intimate knowledge of the people of whom he writes. Their mystic teachings and chants, hidden zealously from the curious, are described by him with the sympathetic care of

one who has felt deeply their lofty beauty.
All who read and loved "Laughing Boy"
will wish to read "The Enemy Gods." In it they will miss much which they enjoyed in the earlier book, and in turn will find much to deepen their admiration for the author's

work in this, his latest book.

-M. GOLDEN.

LIFE IN DEATH VALLEY

Those who have imagined that Death Valley is a place too hot and dry and desolate for animal habitation, will be interested in a 54-page bulletin recently issued by the California Academy of Sciences in which 26 mammals are listed as native of that area.

"Mammals of Death Valley" is the title of the paper and the author is Joseph Grinnell of the Museum of Vertebrate Zoology, University of California.

Prof. Grinnell gives an interesting story of his experience in snaring his specimens, and much detailed information regarding the life and habits of the animals themselves.

His list of 26 species includes six different members of the bat family, two squirrels, two rabbits, three rats, seven mice, Desert Big-horn sheep, badger, fox, coyote and wildcat. In order to make his mammal list complete he also includes Homo Sapiens Americanus, better known to the average reader as the American Indian.

THE

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No one in the southwest should be without this complete well illustrated handbook of our deserts.

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Death Valley

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By W. A. CHALFANT

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DON ADMIRAL

Palm Springs,

California

HOLBROOK, ARIZONA-

During the year which ended October 1, 36,676 automobiles carrying 105,396 persons visited the Petrified Forest National Monument, according to the report of Charles J. Smith, superintendent. After being closed all summer for construction work, the new Painted Desert Rim road is now open, giving motorists an opportunity to view the most colorful section of the Desert from parking areas along the rim.

Here and There ... ON THE DESERT

INDIO, CALIFORNIA-

Approximately 1,600,000 pounds of off-grade dates grown in Coachella valley will be diverted this year from normal trade channels to the by-product market as a result of an agreement between Coachella Date Growners, Inc., and the federal department of agriculture. Under the terms of the agreement the government will pay a four-cent subsidy plus the amount received from the sale of the dates. They will be converted into date flakes, crushed dates, brandy and other by-products. Under a similar plan last year 1.250,000 pounds of off-grade dates were removed from competition with the better grades.

FLORENCE, ARIZONA-

With \$117,072 provided by the WPA, work has been started on the surfacing of a 13.5mile section of Highways 80 and 89 between Florence and Tucson.

ANZA, CALIFORNIA-

Desert residents will be provided with a new route to the Pacific Ocean if plans of civic leaders in Riverside and San Diego counties are successful in their plea for the construction of a 24-mile link connecting the Palms-to-Pines highway with the new Imperial highway near Aguanga. The road will be known as the Cahuilla-Anza Cut-off. Riverside county supervisors have been asked to establish a prison camp to carry on the work.

LAS VEGAS, NEVADA-

Conflicting fish and game laws in Nevada and Arizona have created a confusing situation for fishermen on Lake Mead which forms the boundary line between the two states.

In Nevada, bass are game fish and therefore subject to restrictions as to season, limit, etc. Arizona has never classified bass as a game fish, and therefore it is beyond the jurisdiction of the game wardens. The Las Vegas Journal-Review, commenting on this situation, says:

"Thus we have the spectacle at the moment of bass fishermen tossing their lines into the waters just across an imaginary line separating the two states, and pulling out fine catches. A few inches in position is the difference between bass fishing being legal and illegal.

"If bass fishing should be prohibited on one side of the imaginary line, it should be prohibited on both. If this fishing is allowed in one portion of the lake it should be allowed in the other. There is no difference whatever so far as the welfare of the bass are concerned, whether they are hooked in Nevada or Arizona. Although we admit an embarrassing lack of knowledge of the great sport of fishing, we can't help believing that the fish haven't the least idea where the imaginary line is, and therefore can't retire to the protection afforded on this side by the state law."

CALIPATRIA, CALIFORNIA-

Lewis Copeland, local high school boy, sold 32 tons of honey this year from 800 colonies of bees, receiving \$4000 for his honey crop. His career as an apiarist started four years ago when a swarm of bees took possession of a neighboring home and he was called in to get rid of them.

FLAGSTAFF, ARIZONA-

Old men among the Hopi tribesmen are predicting a mild open winter. Their prediction is based on their observation that the pack rats are fat and lazy, and just beginning to store their winter supply of Pinon nuts.

PALM SPRINGS, CALIFORNIA-

In an address to the Lions club here recently, Dr. John Robertson Macartney proposed that a tramway be built from the floor of the desert at this point to the top of San Jacinto peak. Similar projects in other parts of the world yield a handsome profit, he said.

RENO, NEVADA-

Reno has been named as the convention city for the seventh session of the National Reclamation association, to be held next October. Denver, El Paso, Omaha and Phoenix all made a bid for the 1938 convention but Nevada won in the final ballot.

29 PALMS, CALIFORNIA-

More than 400 residents of the 29 Palms area took part in a festival held recently to celebrate the completion of the highway which links this desert resort with the outside world. The project included the surfacing of streets within the town.

ALBUQUERQUE, NEW MEXICO-

Thomas J. Campbell, big-scale Montana wheat grower, and John J. Raskob have added another 30,000 acres of New Mexico land to the 216,000-acre ranch which they already owned, it has been announced. The new tract, composed of the old Canon del Agua and San Pedro land grants, was purchased from the Santa Fe Gold and Copper company of New York. Lying east of the Sandia mountains, the greater part of the tract is mountainous.

EL PASO, TEXAS-

American farmers living along the Rio Grande valley have organized a vigilance committee to protect their cotton fields from raids by armed Mexicans from across the border. According to their report, the Mexican thieves come across at night and steal bags of newly picked cotton which are sold to gins south of the line.

INDIO, CALIFORNIA-

Detailed plans and specifications for the Coachella valley unit of the All-American canal have been forwarded to the Reclamation Bureau at Washington for approval. It is expected that bids will be called for the first 43 miles of construction as soon as the plans of the field crews are accepted.

SPIRIT OF OLD WEST RECALLED IN ROAD FETE







Lone Pine, Bishop, and Independence, desert communities of Inyo county, California,

ert communities of Inyo county, California, were hosts to thousands of visitors October 29, 30, 31 at the dedication of a new highway link virtually connecting the highest and low-spots in America. By Indian runner, pony express, burro man, covered wagon, 20-mule team, stage coach, narrow guage railway, modern automobile and airplane a gourd of water from Lake Tulainyo on Mt. Whitney was transported to Bad Water in Death Valley. Photos show California's Governor Meriam handing the gourd to Sam Ball, 51 years a Death Valley prospector; Father J. J. Crowley, originator and director of the three-day festival; and the final appearance of the famous 20-mule team and its ancient borax wagons. famous 20-mule team and its ancient borax wagons.

EL CENTRO, CALIFORNIA-

If Boulder dam had not been built, Imperial valley and other lower Colorado river basins would be suffering from water shortage this fall, according to the assertion of Evan T. Hewes, president of the Imperial Irrigation district, Hewes pointed out that the Imperial valley is now drawing between 5,000 and 5,500 second feet of water from the river, which is more water than would be available without Lake Mead storage. Dis-charge into the lake has been abnormally low this fall.

TUCSON, ARIZONA-

Arizona bureau of mines at the state university has found it necessary to print a sixth edition of a small booklet on placer gold mining. The bulletin first was published 15 years ago and the demand for it has been so wide-spread that 45,000 copies have now been printed. They have gone to all parts of the

CALEXICO, CALIFORNIA-

Immediate construction of an improved road across the desert from Niland to Blythe was urged by a delegation of Blythe business men who met with the Associated chambers of Imperial county at a recent meeting here. Ed. F. Williams, president of the Blythe chamber, declared that a north and south road in the Colorado river basin is imperative, and that the only missing link in such a highway is the gap which now exists between the Imperial and Palo Verde valleys. The Imperial chambers deferred action on the proposal until a road committee could make a first-hand investigation of the various possible routes.

DEATH VALLEY, CALIFORNIA-

Hotels in the Death Valley region opened

for the winter season on the first of November. Inn-keepers are expecting the best season in years as a result of improved road facilities and better accommodations for the comfort of visitors.

BRAWLEY, CALIFORNIA-

Bids have been asked by the Imperial Irrigation district on three desel electric generating units to treble the capacity of the district's power plant in this city. The local plant will be used as a standby unit later when all-American canal power is available for distribution.

GLOBE, ARIZONA-

Globe has the unique distinction of being the first city to offer a high school course in archeology. Near the school campus are the famous Besh-Ba-Gowah excavations where the students have an excellent opportunity to carry on practical research. The course is being taught by P. E. Vickery whose wife is in charge of the Besh-Ba-Gowah excavations. in charge of the Besh-Ba-Gowah excavations.

FLAGSTAFF, ARIZONA-

Landscaping plans are being prepared for the opening of additional recreational areas along Tonto rim, according to the announce-ment of R. W. Hussey, supervisor of Coco-nino National forest. Two or three new camp ground sites are expected to be available for the travel season next summer.

PALM SPRINGS, CALIFORNIA-

Coyotes are becoming more numerous in the Santa Rosa-San Jacinto mountain area according to Frank Reed. He reported that the animals recently had killed one horse which was pastured in the mountains, and that he had saved another when he happened on the scene as it was attacked by a pack of the animals.



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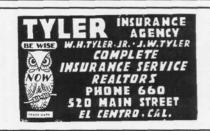
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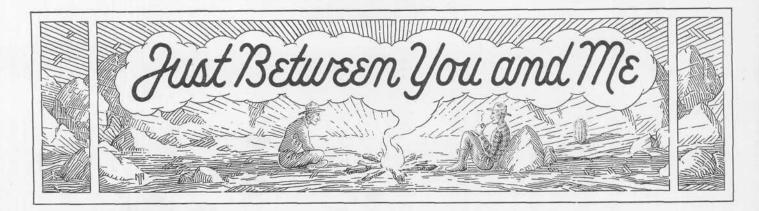




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By RANDALL HENDERSON

A MONTH has passed since the first issue of the Desert Magazine went out to its readers—and what a thrilling month for all of us who are working on this journal of the desert.

They're the greatest fans on earth—these desert folks. And when I say "desert folks" I mean not only those who make their homes in this mysterious land of little rainfall, but also those countless numbers of Americans whose enthusiasm for the desert is not dimmed by the fact that they reside miles, perhaps thousands of miles, away.

We've been deluged with mail. Literally hundreds of letters of congratulation and good wishes have poured in from all points of the compass. Many of them contained subscriptions. Almost without exception they brought enthusiastic endorsement of the new magazine.

To say we are grateful is putting it mildly. We are happy—but not too elated to feel a very deep sense of responsibility to the thousands of friends who have expressed their confidence in our project. The DESERT MAGAZINE must justify the faith and loyalty of the desert fraternity.

I want to tell you something about the cover on this issue. To the casual observer, perhaps, this lone Washingtonia is just another palm tree. To me it is a shrine that symbolizes one of the finest traits in the character of the

desert-courage.

This grizzled veteran stands out in the Badlands region between Salton Sea and Borego valley. I found it away out there, far removed from any of its kin, one day when I had hiked many miles from the paved highway. Undoubtedly there is moisture at its roots, but the surface supply of water has long since disappeared. No one can even guess how long it has stood there, defying the unfriendly elements of one of the most barren regions in the desert.

Bent with age, it still sends forth a generous harvest of seeds each year in a heroic effort to recreate its kind.

There is courage for you—to the highest degree.

* * *

At Palm Springs petitions are being circulated preparatory to holding an election for the incorporation of the town.

Although I have no financial investment and only a limited acquaintance in Palm Springs, I am watching the

progress of this new movement with all the interest of a native of the Village.

Perhaps my fears are unfounded, but I have been afraid that the money-makers would crowd out the artists. Palm Springs today is the realization of a beautiful dream. It was founded and much of its planning has been done by those men and women who find greater happiness in creative work than in the mere accumulating of money.

In recent years I have sensed the invasion of a new element there—an element which would take the charm and prestige which creative genius has brought to Palm Springs

-and barter these priceless assets for gold.

I hope it doesn't happen. Money alone cannot create so picturesque a community as Palm Springs. Nor can mere dollars retain for that quaint little village at the base of San Jacinto that intangible lure which now draws visitors from all over the world.

Not that there necessarily is a clash between creative art and profit-taking. The real work of the world is done by men and women who possess a happy blending of both talents. But, unfortunately, the pitiless race for dollars has sometimes numbed man's appreciation for the really worth

while things.

Please do not construe this as a plea against incorporation of Palm Springs. I regard it as miraculous that so many members of the human family have been able to dwell together in that community for so long a time without a local governing agency. No doubt there are many good reasons why Palm Springs should be incorporated.

I do hope very earnestly that a majority of the new city trustees, if and when they are elected, will be men whose souls have not lost all the poetry with which the Divine

Creator endowed them.

And, having gotten that out of my system, I will admit that the incorporation problem at Palm Springs really is none of my business.

e 40 40

And now, for the information of any and all desert writers—please do not send me poems and stories about horned toads that hop. These desert toads just don't travel that way. They really do not belong to the toad family anyway. And spell "Ocotillo" without an "a".

Otherwise, everything is serene at the Desert Magazine office. Thanks for the letters. I couldn't answer them all.

And I hope you enjoy this issue of your magazine.



A DESERT CHRISTMAS GIFT

... for particular people

PALM RIPENED CALIFORNIA

SOFT DATES

Six varieties of the finest palm-ripened soft dates grown in California. This attractive three-pound container makes an ideal Christmas gift.

ONE 3-POUND CONTAINER

Delivered any place in U. S. A. for.

\$2¹⁵

TWO 3 POUND CONTAINERS

*3≅

Delivered to ONE address in U. S. A. for

ONE CASE

(12 three pound containers)
Shipped express, charges collect.

Above three-pound Variety Pack of Soft Dates AND a three pound Sampler Pack of Desert Delicacies (including date cake, date loaf, stuffed dates, and large soft dates) delivered to ONE address. \$4.45

Special

GET ACQUAINTED PACKAGE

Consisting of one pound each, Assorted Dates, Date Cake, Stuffed Dates, Date Loaf, Cactus Candy, Date Candy, eight-ounce jar Dates in Brandy and a jar of Date Butter.

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PLACE IN U.S.A.

. . . a unique gift for Christmas. . .

FIVE POUND pack (bulk carton) of very fancy Deglet Noor Dates, shipped anywhere in \$235 the U. S. A.....

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R. C. NICOLL, Prop.

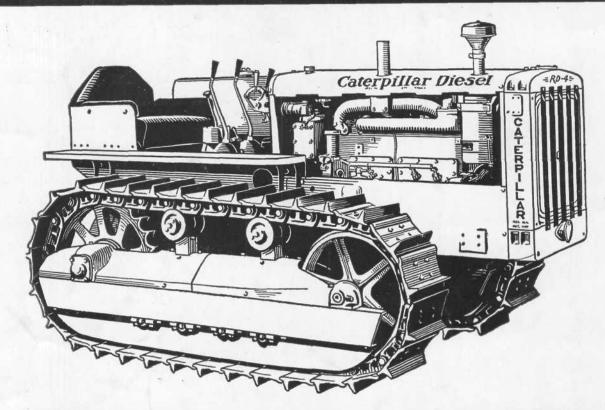
Thermal, Calif.



Valerie Jean Date Shop is on U.S. 99 highway northwest of Salton Sea. Westbound tourists using U.S. 80 and 99 will find the shop beside the big arrow on the left side of the road. Driving west from Blythe, the motorist may reach the date shop by taking a left fork through Box Canyon and Mecca. Los Angeles and coast visitors to the desert resorts will find Valerie Jean's a handy place to purchase Christmas gifts in the true desert motif.



Many travelers drive miles out of their way in order to taste that Desert Delicacy— A DATE MILK SHAKE



GUARANTEE IS AS GOOD AS ITS BACKER

EHIND every Caterpillar product sold by the Ben Hulse Tractor and Equipment Co. is an iron-clad D guarantee, assurance of the moral and financial responsibility of both the manufacturer and the local distributor.

THE CATERPILLAR Tractor Company of Peoria is the oldest and largest manufacturer of track type tractors in the world. Sales of the company for nine months ending September 30 amounted to \$54,405,559 with a profit of \$9,135,936. Every tractor Caterpillar built is absolutely dependable, backed by a vast research and engineering corps.

THE FIRST Caterpillar brought to Imperial Valley was a 45 horsepower track-layer. Ben Hulse put it to work clearing desert land in 1910, beginning his long sales and service association with the company. Now, 27 years

> later, more than 75,000 Caterpillar horsepower is at work in Imperial and Yuma valleys, about 95 per cent employed in the agricultural industry.

> BEN HULSE stands ready to show to any Caterpillar owner or prospective buyer his financial ability to stand solidly behind his guarantee.

> WHEN YOU buy Caterpillar, you buy economy in operation and long dependable service, backed by the manufacturer and your local distributor.

> Why not investigate guarantees as carefully as you do the product when contemplating the purchasing of equipment? You will find it will pay in the long run.



BEN HULSE TRACTOR AND EQUIPMENT

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